Finding of No Significant Impact

Environmental Assessment of Installation Development at Joint Base Andrews-Naval Air Facility Washington, Maryland

Introduction

The United States Air Force (USAF), Joint Base Andrews-Naval Air Facility Washington, Maryland (JBA) proposes to improve its operational efficiency by implementing a program of targeted demolition and construction. JBA has prepared an environmental assessment (EA) that assesses the environmental effects of implementing multiple projects at the Base. The EA analyzes the effects of replacing a fitness center, a child development center, and a traffic check house; constructing a helicopter operations facility and a Security Forces Group complex; expanding a parking lot; demolishing four facilities; and modifying three entry control facilities. This decision document is based on that EA, which is attached to this Finding of No Significant Impact and incorporated by reference.

Purpose of and Need for the Proposed Action

The overall purpose of the proposed projects is to increase operational efficiencies at JBA by demolishing, constructing, and modifying facilities that have been identified by the Base as representing a high life-cycle cost (including repair and maintenance), or that are insufficient to meet current or projected mission requirements.

Construction projects would replace outdated and inadequate facilities with new, energy-efficient ones that meet USAF facility requirements, have lower operating costs than existing facilities, enhance mission accomplishment, and increase operational efficiencies. Demolition projects would remove unneeded facilities from the JBA inventory. Additional parking space is needed at one facility to accommodate a personnel increase that resulted from joint basing. Entry control facility modifications are required to address and correct deficiencies related to safety and the security of the facilities.

Description of the Proposed Action

The proposed action is to implement the projects presented and discussed in the installation development EA. Under the proposed action, the JBA would:

- Construct a Helicopter Operations Facility near Hangar 1.
- Demolish JBA's West Fitness Center (Building 1444) and replace it with a new fitness center near the current location of the West Fitness Center.
- Demolish Child Development Center (CDC) #1 (Building 4575) and replace it with a new CDC near the current location of CDC #1.
- Construct a Security Forces Group Complex, which would require demolishing Building 1642, the Base Library, and Building 1605, a privately owned vehicle wash rack. The Base Library would be moved to space in existing facilities and the wash rack would not be replaced.
- Expand the size of the parking lot at Building 1845.
- Replace Building 1988, a traffic check house at the intersection of Maryland Drive and North Perimeter Road (the Maryland Gate).
- Demolish Buildings 1429 (a generator building), 1679 (Chapel 3), and 1732 (a heat plant), and remove the canopy and fuel tanks at Building 1685, an Army and Air Force Exchange Service gas station that has been replaced.
- Modify the entry control facilities at the Main Gate, Virginia Gate, and Pearl Harbor Gate to correct facility deficiencies related to safety and security.

Each of the above projects could be undertaken independently of the others. Project implementation would begin in 2013.

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
APR 2013		**00-00-2013 to 00-00-2013**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Installation Development Environmental Assessment at Joint Base Andrews-Naval Air Facility Washington Prince George's County, Maryland	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Tetra Tech Inc,3475 E. Foothill Blvd,Pasadena,CA,91107-6024**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

JBA proposes a program of targeted construction and demolition activities intended to improve its operational efficiency and ensure that the installation can sustain its current and future national security operations and mission-readiness status. The proposed activities are  Construct a Helicopter Operations Facility.  Construct a new fitness center and demolish the West Fitness Center (Building 1444).  Construct a new Child Development Center (CDC) and demolish CDC #1 (Building 4575).  Construct a Security Forces Group complex and demolish two buildings (Building 1642 [Base Library] and Building 1605 [a vehicle wash rack]) that are on the site selected for the complex.  Enlarge the parking lot adjacent to Building 1845.  Demolish Building 1988 (a traffic check house) and construct a new traffic check house in the same location.  Demolish Buildings 1429 (a generator building), 1679 (Chapel 3), and 1732 (a heat plant), and the canopy and fuel tanks at Building 1685 (a former Army and Air Force Exchange Service gas station).  Modify three entry control facilities (Main Gate, Pearl Harbor Gate, and Virginia Gate). The scope of this Installation Development EA includes an evaluation of alternatives for the various projects, where applicable, and analysis of the cumulative effects on the natural and man-made environments. This EA has been prepared to report the evaluation conducted of the proposed action and alternatives including the No Action Alternative. Resource areas addressed in the EA are noise, air quality, safety and occupational health, earth resources, water resources, infrastructure/utilities, transportation, hazardous materials and wastes, biological resources, cultural resources, historic and archaeological resources socioeconomics (including environmental justice and protection of children), land use and visual resources, and sustainability and greening. The Draft EA is made available to agencies and the public for a 30-day comment period from February 5, 2013, to March 7, 2013.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**194**	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18

Public Review and Interagency and Intergovernmental Coordination

In accordance with Air Force policy, the interagency and intergovernmental coordination for environmental planning (IICEP) was initiated on October 9, 2012. Public and IICEP review of the draft IDEA was conducted from February 21 to March 24, 2013. Comments received and responses are in Appendix A of the IDEA.

Finding of No Significant Impact

I conclude that the environmental effects of the proposed installation development at JBA are not significant, that preparation of an environmental impact statement is unnecessary, and that a finding of no significant impact is appropriate. The preparation of the IDEA is in accordance with the National Environmental Policy Act, the regulations of the Council on Environmental Quality, and Title 32 *Code of Federal Regulations* Part 989, as amended.

GREG N. URTSO, Colonel, USAF
Vice Commander, 11th Wing

23 May 2013
Date

Attachment: Installation Development Environmental Assessment

Installation Development Environmental Assessment

at Joint Base Andrews-Naval Air Facility Washington

Prince George's County, Maryland

Final

April 2013

Prepared for:

DEPARTMENT OF THE AIR FORCE
Joint Base Andrews-Naval Air Facility, Washington
Prince George's County, Maryland

Abbreviations and Acronyms

°F	degrees Fahrenheit
1HS	1st Helicopter Squadron
811OSS	811th Operational Support Squadron
AADT	average annual daily traffic
AAFES	Army and Air Force Exchange Service
AASHTO	American Association of State Highway and Transportation Officials
ACM	asbestos-containing materials
AFH	Air Force Handbook
AICUZ	Air Installation Compatible Use Zone
ANSI	American National Standards Institute
AQCR	Air-Quality Control Region
AST	above-ground storage tank
AT/FP	Anti-Terrorism/Force Protection
AVB	active vehicle barrier
BMP	best management practice
BRAC	Base Realignment and Closure
CARB	California Air Resources Board
CDC	Child Development Center
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
CO	carbon monoxide
CO_2	carbon dioxide
COMAR	Code of Maryland
dB	decibel
dBA	A-weighted decibel
DNL	day-night sound level
DoD	Department of Defense
EA	environmental assessment
ECF	entry-control facility
EIFS	Economic Impact Forecast System
EO	executive order
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
ESQD	Explosive Safety-Quantity Distance
FHWA	Federal Highway Administration
FY	fiscal year
GHG	greenhouse gas
HOF	Helicopter Operations Facility
HVAC	heating, ventilation, and air conditioning
I	Interstate
ID	identification
IDEA	installation development environmental assessment
IRP	Installation Restoration Program
JBA	Joint Base Andrews-Naval Air Facility Washington
LBP	lead-based paint
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LOS	level of service
LUC	land-use control
m	meter
MD	Maryland Route
MDE	Maryland Department of the Environment
MUTCD	*Manual on Uniform Traffic Control Devices*
NAAQS	National Ambient Air Quality Standards
NCR	National Capital Region
NEPA	National Environmental Policy Act
NLR	noise level reduction
NO_x	oxides of nitrogen
NSA	noise sensitive area
O_3	ozone
PCPI	per capita personal income

PEPCO	Potomac Electric Power Company
$PM_{2.5}$	small particulate matter
PM_{10}	particulate matter
POV	privately owned vehicle
ppm	part per million
ROI	region of influence
RONA	Record of Non-Applicability
RTV	rational threshold value
SDDCTEA	Surface Deployment and Distribution Command Transportation Engineering Agency
SF	square feet
SO_2	sulfur dioxide
SO_x	oxides of sulfur
SPCCP	Spill Prevention, Control, and Countermeasure Plan
SQ OPS/MXS	Squadron Operations/Maintenance Squadron
tpy	tons per year
U.S.C.	*United States Code*
UFC	Unified Facilities Criteria
USACE	U.S. Army Corps of Engineers
USAF	United States Air Force
UST	underground storage tank
VOC	volatile organic compound
vpd	vehicles per day
WGL	Washington Gas Light Company
WSSC	Washington Suburban Sanitary Commission

Cover Sheet

Draft Environmental Assessment of Installation Development at Joint Base Andrews-Naval Air Facility Washington, Maryland

Responsible Agencies: U.S. Air Force (USAF), Air Force District Washington, Headquarters Air Mobility Command, and the 11th Wing, Joint Base Andrews-Naval Air Facility Washington, Maryland (JBA)

Affected Location: JBA, Prince George's County, Maryland

Proposed Action: Implementation of approved installation development plans

Report Designation: Draft Environmental Assessment (EA)

Written comments and inquiries regarding this document should be directed to Ms. Anne Hodges, 11 CES/CEAO/Asset Optimization, at (301) 981-1426, or e-mail to anne.hodges@afncr.af.mil

Abstract: JBA proposes a program of targeted construction and demolition activities intended to improve its operational efficiency and ensure that the installation can sustain its current and future national security operations and mission-readiness status. The proposed activities are:

- Construct a Helicopter Operations Facility.
- Construct a new fitness center and demolish the West Fitness Center (Building 1444).
- Construct a new Child Development Center (CDC) and demolish CDC #1 (Building 4575).
- Construct a Security Forces Group complex and demolish two buildings (Building 1642 [Base Library] and Building 1605 [a vehicle wash rack]) that are on the site selected for the complex.
- Enlarge the parking lot adjacent to Building 1845.
- Demolish Building 1988 (a traffic check house) and construct a new traffic check house in the same location.
- Demolish Buildings 1429 (a generator building), 1679 (Chapel 3), and 1732 (a heat plant), and the canopy and fuel tanks at Building 1685 (a former Army and Air Force Exchange Service gas station).
- Modify three entry control facilities (Main Gate, Pearl Harbor Gate, and Virginia Gate).

The scope of this Installation Development EA includes an evaluation of alternatives for the various projects, where applicable, and analysis of the cumulative effects on the natural and man-made environments.

This EA has been prepared to report the evaluation conducted of the proposed action and alternatives, including the No Action Alternative. Resource areas addressed in the EA are noise, air quality, safety and occupational health, earth resources, water resources, infrastructure/utilities, transportation, hazardous materials and wastes, biological resources, cultural resources, historic and archaeological resources, socioeconomics (including environmental justice and protection of children), land use and visual resources, and sustainability and greening. The Draft EA is made available to agencies and the public for a 30-day comment period from February 5, 2013, to March 7, 2013.

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SECTION 1.0
PURPOSE AND NEED

1.1 INTRODUCTION

The United States Air Force (USAF), Joint Base Andrews-Naval Air Facility Washington, Maryland (JBA) proposes to improve its operational efficiency by implementing a program of targeted demolition and construction. The program consists of the projects listed below. The projects are independent of one another; that is, no project would be contingent upon another project being completed.

- Construct a Helicopter Operations Facility (HOF) near Hangar 1.
- Demolish JBA's West Fitness Center (Building 1444) and replace it with a new fitness center near the current location of the West Fitness Center.
- Demolish Child Development Center (CDC) #1 (Building 4575) and replace it with a new CDC near the current location of CDC #1.
- Construct a Security Forces Group Complex, which would require demolishing Building 1642 (the Base Library) and Building 1605 (a privately owned-vehicle [POV] wash rack). The Base Library would be moved to space in existing facilities and the wash rack would not be replaced.
- Expand the size of the parking lot adjacent to Building 1845, which is used by the Security Forces Group.
- Demolish Building 1988 (a traffic check house at the intersection of Maryland Drive and North Perimeter Road) and replace it with a new traffic check house in the same location.
- Demolish Buildings 1429 (a generator building), 1679 (Chapel 3), 1732 (a heat plant), and the canopy and fuel tanks at Building 1685 (a former Army and Air Force Exchange Service [AAFES] service station that has been replaced).
- Modify the entry control facilities (ECFs) at the Main Gate, Virginia Gate, and Pearl Harbor Gate to correct facility deficiencies related to safety and security.

This environment assessment (EA) reports the potential environmental consequences of implementing the proposed projects, project alternatives (where applicable), and of not implementing the projects (referred to as the No Action Alternative) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended (42 *United States Code* [U.S.C.] 4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations for Implementing Procedural Provisions of NEPA (*40 Code of Federal Regulations* [CFR] 1500–1508); Title 32 CFR Part 989; and other applicable federal and local regulations.

For this EA, both short- and long-term impacts were evaluated. Short-term impacts are those that would occur during the project period and would cease at the conclusion of construction or demolition. Long-term impacts are those that would be expected to persist after the project's conclusion. Additionally, the cumulative effects (resulting from the incremental effects of the actions analyzed in this EA when combined with other past, present, and reasonably foreseeable future projects) on environmental resources are evaluated.

The USAF is representing the Department of Defense (DoD) as the lead agency for these proposed actions.

1.2 LOCATION

JBA is 5 miles southeast of Washington, D.C., in southern Prince George's County, Maryland (Figure 1-1). The Base occupies 4,390 acres abutting Interstate (I) 495, between Maryland Route 4 (Pennsylvania Avenue) and Maryland Route 5 (Branch Avenue). The communities of Camp Springs and Morningside are adjacent to the Base. Surrounding land use consists of residential, industrial, commercial, and institutional areas and woodlands. The total population living and working on JBA is approximately 16,700 persons (AAFB 2010).

1.3 BASE MISSION

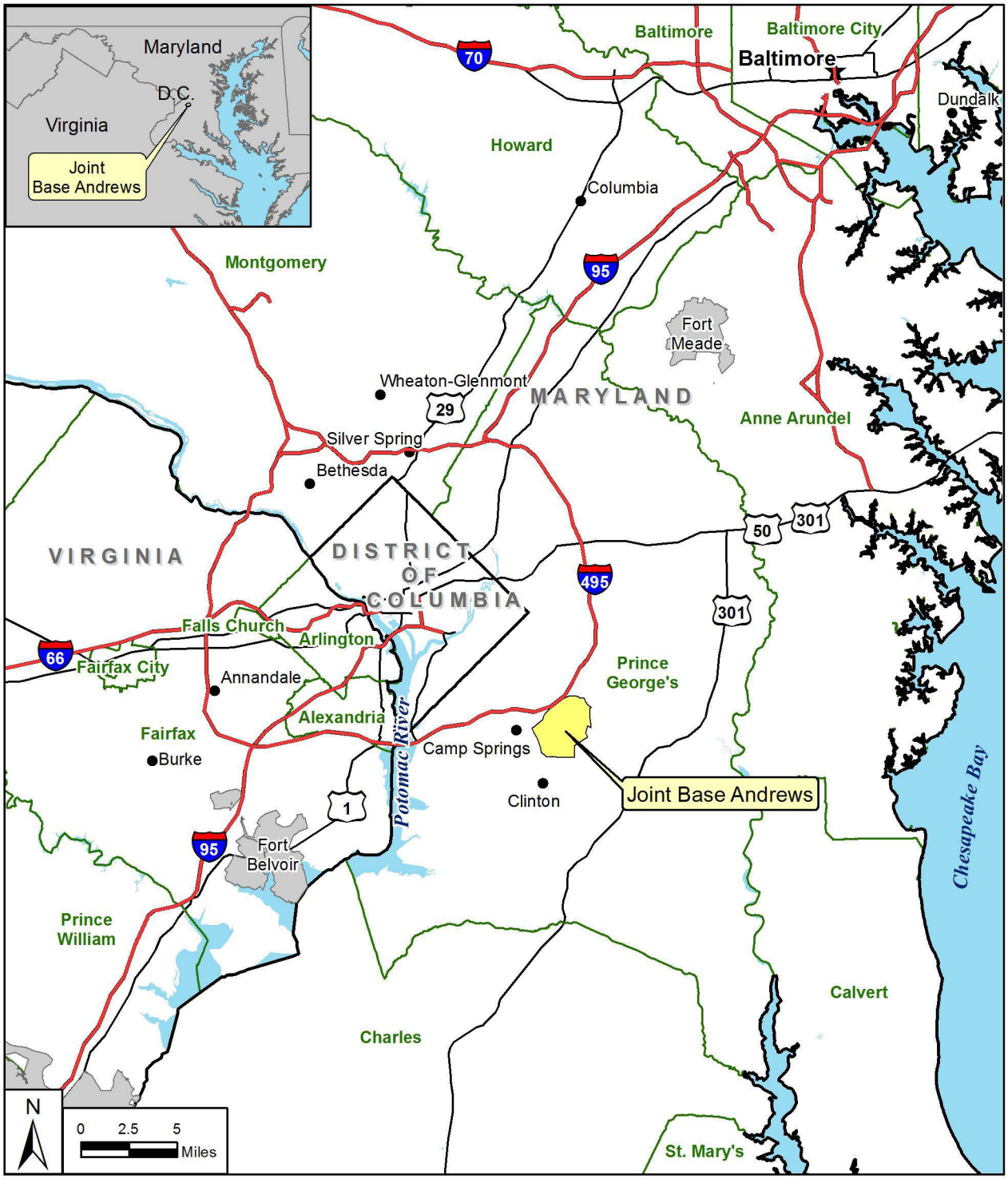
JBA's mission is to provide contingency response capability critical to national security. This includes emergency reaction rotary-wing airlift for the National Capital Region; combat-ready airmen to Air and Space Expeditionary Forces; and a secure installation with robust infrastructure that supports organizations on Base.

1.4 PLANNING PROCESS

The planning process that resulted in the selection of the Preferred Alternative for each project presented in the IDEA was a collaborative one among the Host Wing (316th Wing, now the 11th Wing) and key organizations and major partner units at JBA. It was part of updating JBA's General Plan, which documents the facilities and infrastructure needed to support the mission capabilities of the entire base, and it involved evaluating JBA's capabilities and their associated facility implications within the context of the base's vision. This resulted in a facilities plan that is consistent with the mission, strategy, and vision for future development of JBA.

Major changes have occurred at JBA that had to be accommodated during this planning process, most significantly Base Realignment and Closure (BRAC) 2005. Major BRAC actions that affected JBA included moving National Capital Region (NCR) Air Force leased locations to JBA, constructing a 163,000-SF administrative facility and parking for 804 personnel, moving the NCR-leased Air National Guard Headquarters to JBA, constructing a 150,000-SF administrative facility and parking for 605 personnel, and converting the Malcolm Grow Medical Center to an ambulatory clinic. These and other BRAC projects added 2,000 people to the base population.

The planning process was intended to rationalize the process by which decisions are made for land use, infrastructure development, and project sitings. The strategic planning effort occurred in 2007, as part of updating the JBA General Plan, and recognized the impact of BRAC 2005. The goals of the planning process—including creating a town center and maximizing mission efficiency—were the guiding principles that formed the foundation for future installation development. Using these principles and the information gathered on real-property use, a *perfect-world* vision of the base was created and translated into a 25-year facility project program, which serves as a roadmap for development. The process used to formulate the General Plan—and therefore the selected sitings of the projects proposed in the IDEA—promotes informed, sound, and coordinated decisions on the future development of JBA.



LEGEND

- Joint Base Andrews
- Interstate Highway
- U.S. Route
- County Boundary
- Surface Water

Location of Joint Base Andrews-Naval Air Facility Washington

Figure 1-1

1.5 PURPOSE OF AND NEED FOR PROPOSED ACTIONS

The overall purpose of the proposed projects is to increase operational efficiencies at JBA by demolishing, constructing, and modifying facilities that have been identified by the Base as representing a high life-cycle cost (including repair and maintenance), or that are insufficient to meet current or projected mission requirements. Implementing any or all of the proposed projects would assist JBA in meeting the 20/20 by 2020 goal; a 20 percent reduction in the USAF's infrastructure life cycle funding requirement by 2020 through such strategies as increased efficiency and demolition.

The proposed projects are needed to help the USAF and JBA accommodate mission increases, better meet mission requirements, and provide modern facilities that are adequate to support Base personnel and their families. As explained below, the Base has individual missions operating out of separate facilities, uses temporary facilities that are either inadequate or that occupy mission-critical space, and diverts resources for repairing and maintaining aging, inadequate facilities. This results in inadequate mission response and Base personnel relying on off-Base providers for essential needs. Older facilities generally do not meet federal or USAF facility requirements, are not energy efficient, and require above-average maintenance expenditures. The purpose of and need for the proposed project is presented below.

1.5.1 Helicopter Operations Facility Construction

The proposed action for the Helicopter Operations Facility (HOF) is to construct a new facility to accommodate the 1st Helicopter Squadron (1HS) and 811th Operational Support Squadron (811OSS). The purpose of the proposed action is to provide adequate space for the current mission and for a future mission increase of approximately 200 percent. The 1HS and 811OSS are housed in various facilities at JBA, with the majority of personnel from these organizations occupying a hangar that cannot adequately accommodate personnel, does not have capacity for planned growth, and lacks appropriate space for Top Secret-level briefings, training, and discussions. No existing facility would be demolished in association with constructing a HOF.

A facility of adequate size is important for the 1HS and 811OSS because they will receive additional personnel and aircraft at JBA that will need to be accommodated, and because of the immediate-response requirements of their mission. The 1HS and 811OSS will have a 200 percent mission increase that cannot be accommodated in available space. Approximately 20 percent of the staff (approximately 20 personnel) does not have permanent workstations. Private offices for leadership positions are not provided, and existing offices are shared by multiple leaders. This space deficit would become unmanageable with the arrival of 140 new personnel and seven additional aircraft by fiscal year (FY) 16. As an interim solution, temporary trailers totaling 4,000 square feet (SF) are being used on a hangar floor to accommodate office space and aircrew flight equipment workshop needs. However, the use of trailers comes at a direct cost to the mission because they occupy precious aircraft and maintenance space.

The requirement is for an adequately sized and configured facility that supports the 1HS and 811OSS mission and provides space for flight and training tasks—including planning, briefing, administration, flight equipment processing and storage, and a simulator bay. A new facility of

approximately 60,000 SF would meet mission needs. The new facility would accommodate all administrative offices for these two organizations, a large auditorium, multiple briefing/debriefing rooms, conference rooms, mission control area, classified material storage, ready area, shower/ locker rooms, standardization/evaluation section, technical order library space, rapid deployment slides, general storage area, software preparation room, database generation room, air crew flight equipment section, facility management section, and mobility warehouse section.

The following selection standards apply to the proposed HOF project:

- Location: The facility must be adjacent to Hangar 1, inside the Pathfinder fence on the west flightline, as close as possible to the northwest aircraft parking apron and the helicopter parking ramp, and permit rapid deployment to the south ramp; flight crews must be able to exit the building and be to their helicopters within three minutes of being alerted.
- Size: The site must be able to accommodate a facility sized to include all required components as outlined in *Air Force Handbook 32-1084* (including required parking) and the Squadron Operations/Maintenance Squadron (SQ OPS/MXS) *Facility Design Guide*.
- Land Use: Facility operations must be compatible with surrounding land use and not create incompatible land use interactions.
- Security: The facility must comply with Anti-Terrorism/Force Protection (AT/FP) requirements identified in DoD UFC.
- Environmental: The facility must allow for appropriate stormwater controls and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources.
- Utilities: The facility must be close to existing utility systems and be energy efficient.

1.5.2 West Fitness Center Replacement

The proposed action for the West Fitness Center is to replace a substandard fitness center—the existing West Fitness Center—with a new fitness center that meets mission needs. The purpose of the proposed action is to meet the physical fitness needs of the JBA population. This proposed action includes demolition of the West Fitness Center (Building 1444).

JBA has two physical fitness centers—one adequate and one substandard. The substandard facility (West Fitness Center, Building 1444) is undersized and does not provide sufficient space to meet the demonstrated need for intramural and Base-wide sports activities. The fitness centers cannot accommodate the additional 3,000 Airmen relocating to JBA because of Base Realignment and Closure (BRAC) and National Capital Region restructuring. The West Fitness Center also has operational inefficiencies (including poor ventilation, lighting, and electrical system, and a leaking roof). Repairs to the facility are needed frequently and are costly. When the West Fitness Center is being repaired its operations are curtailed, exacerbating the shortage of fitness facilities on Base. The other Base fitness center is then overcrowded and patrons either discontinue regular fitness programs or travel to off-Base providers, which is very expensive for lower-grade personnel.

A modern, efficient, well-designed fitness center is needed to effectively meet the Air Force Chief of Staff's *Fit to Fight* physical fitness program for military mission readiness to prepare Airmen to win today's fight, while accommodating new and existing programs in a safe, healthy environment conducive to maintaining the health and physical fitness of Base personnel and their

families. JBA has determined that a new fitness center twice the size of the West Fitness Center (providing, therefore, approximately 84,000 SF) is required to meet this need. A modern, adequate facility would permit programs to continue and would avoid expensive renovations and repairs that must perpetually be made to continue operations in the existing West Fitness Center.

The following selection standards apply to the proposed West Fitness Center replacement project:

- Location: Per the 2010 General Plan, the facility must be in the JBA Town Center-Readiness Complex area.
- Size: The facility must be sized to accommodate courts for basketball, volleyball, and racquetball; cardiovascular rooms; a health and wellness center; male and female locker rooms; weight training rooms; a stretching area; a group exercise area; an indoor six-lane lap pool; an indoor running track; distinguished visitor locker rooms; a sauna; food demonstration areas; storage; laundry; and administration management.
- Land Use: The facility use must be compatible with surrounding land use and not create incompatible land use interactions.
- Security: The facility must comply with AT/FP requirements identified in DoD UFC.
- Environmental: The facility must allow for appropriate stormwater controls to be implemented and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources.
- Utilities: The facility must be close to existing utility systems and be energy efficient.

1.5.3 Child Development Center #1 Replacement

The proposed action is to replace the inadequate CDC #1 (Building 4575) with a new CDC that meets mission needs. The purpose of the proposed action is to meet the child care and child development needs of the JBA population. CDC #1 was constructed in 1943; has multiple rooms that are unusable for various reasons (including mold); has an old heating, ventilation, and air conditioning (HVAC) system that often does not function properly; does not meet AT/FP standards; and cannot accommodate the waiting list of children (approximately 130 children) or the child care needs of the additional 3,000 Airmen relocating to JBA because of BRAC and National Capital Region restructuring (Department of the Air Force 2007). This proposed action includes demolition of CDC #1.

The Family Childcare Program at JBA serves approximately 7,500 customers each year and oversees at least 12 on-Base childcare providers. Service members unable to enroll their children in CDCs at JBA because of the lack of capacity are forced to find other, more expensive, less convenient, and potentially lower-quality alternatives in the local area. Off-Base child care typically costs $8,400 more per year than on-Base care, which places a severe financial strain on military personnel. CDC #1 has a capacity of only 122 children, approximately one-half of what is needed. With a new CDC, families that use off-Base child care centers or unlicensed baby sitters would have the alternative of using more affordable, convenient, and secure on-Base child care.

The new CDC would be able to accommodate 242 children and would be approximately 41,000 SF. The facility would have 18 classrooms, a gross motor room, a lobby with reception area, a conference room, administrative offices, a staff lounge, a full-service kitchen, storage, adult bathrooms, janitorial and laundry rooms, and a multipurpose room to accommodate additional capabilities for child care, training, and educational activities in a secure, climate-controlled area.

The following selection standards apply to the proposed CDC replacement project:

- Location: The facility must be in an appropriate noise environment (i.e., not within an area where the daytime noise level exceeds a regulatory maximum). The new CDC also must be proximate to the Virginia Gate because it is primarily meant to serve those parents who enter the base through the Virginia Avenue Gate.
- Size: The facility must be sized to include a pick-up/drop-off area, a canopy entrance, an outdoor play area, a multipurpose room, utility spaces, and parking.
- Land Use: The facility use must be compatible with surrounding land use and not create incompatible land use interactions.
- Security: The facility must comply with AT/FP requirements identified in DoD UFC.
- Environmental: The facility must not be on an Installation Restoration Program site incompatible with the proposed facility. It must allow for appropriate stormwater controls and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources. The facility cannot present known health hazards to children.
- Utilities: The facility must be close to existing utility systems and be energy efficient.

1.5.4 Security Forces Group Complex Construction

The proposed action for the Security Forces Group complex is to construct a consolidated facility for the Security Forces Group. The purpose of the proposed action is to provide an adequately sized and configured multistory Security Forces Group complex that enables the 11th Security Forces Group to provide effective force protection to JBA, the President of the United States, U.S. senior leaders, and visiting foreign heads of state. Security Forces Group operations at JBA are conducted from two undersized, 1960s-era facilities on opposite sides of the Base and two temporary trailers—locations that are poorly suited to support a rapid response when necessary. The Security Forces Group supply facility is in a corner of the Base far removed from sensitive areas where immediate response from the Security Forces Group is required. This often results in Security Forces Group personnel driving from an operations center to the supply facility and then to the site where a response is required. This can be a 6.1-mile drive, and response time is delayed if Security Forces Group personnel have to travel through traffic-congested areas. This proposed action also includes demolition of two facilities (Building 1642 [the Base Library] and Building 1605 [a POV wash rack]) that are on the proposed construction site for the new Security Forces Group complex. The new complex would be approximately 82,000 SF. No changes in the type or frequency of Security Forces Group operations would result from the proposed construction.

The following selection standards apply to the proposed Security Forces Group complex project:

- Location: The facility must be in a location that allows for rapid response to high level threats and highly sensitive mission areas, and in the 2010 General Plan Squadron Operations Quadrant Area (which contains Building 1658). The facility must also be in the interior portion of JBA to reduce the vulnerability and exposure of security personnel to off-base threats.
- Size: The complex must be sized to include a semi-hardened Base Defense Operations Center, battle staff room, armory, guard mount area, mobility storage area, supply/logistics section, vehicle section, weapons cleaning area, command area, operations area, quality control/standards evaluation area, control center, training area, and detention area.

- Land Use: The facility use must be compatible with surrounding land use and not create incompatible land use interactions.
- Security: The facility must comply with AT/FP requirements identified in DoD UFC.
- Environmental: The facility must allow for appropriate stormwater controls and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources.
- Utilities: The facility must be close to existing utility systems and be energy efficient.

1.5.5 Building 1845 Parking Lot Addition

The proposed action is to construct additional parking space at Building 1845, Security Police Operations. The purpose of the proposed action is to provide adequate parking for the 825 personnel who work at Building 1845 and to provide sufficient parking for additional personnel who will be stationed at the building in the near future. Personnel who report to Building 1845, including administrative personnel and guards, park in numerous locations on Base because of the lack of sufficient parking at Building 1845. The parking lot adjacent to Building 1845 has an area of approximately 93,110 SF. About 100 more parking spaces (which equates to about 40,000 SF) are needed. The new Security Forces Group complex (see above) is several years from completion (its construction is tentatively scheduled for 2016–2018), and the additional space would provide adequate parking at Building 1845 until the new complex is completed.

The following selection standards apply to the proposed Building 1845 parking lot addition project:

- Location: The parking lot must be adjacent to Building 1845.
- Size: The parking lot must be sized to accommodate the 825 Security Forces Group personnel at JBA and anticipated future increases in Security Forces Group personnel at JBA (the anticipated need is 100 additional parking spaces [40,000 SF]).
- Security: The parking lot must comply with AT/FP requirements identified in DoD UFC.
- Environmental: The facility must allow for appropriate stormwater controls and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources.

1.5.6 Building 1988 Replacement

The proposed action is to demolish and replace Building 1988 (a traffic check house at JBA's Maryland Gate). Building 1988 is in poor condition and does not meet AT/FP requirements. The door opens to the wrong side of the facility and does not have ballistic glass, which puts personnel at risk. The Maryland Gate is the sole Distinguished Visitor gate of entry for the Base, and in its current condition Building 1988 does not portray a professional image. Building 1988 would be replaced with a new traffic check house of approximately the same size (about 140 SF) in the same location.

The following selection standards apply to the proposed Building 1988 replacement project:

- Location: The new traffic check house must be at or near the same location as Building 1988 at the Maryland Gate so it can serve the arrival and departure of U.S. officials and distinguished visitors.
- Security: The parking lot must comply with AT/FP requirements identified in DoD UFC.

- Environmental: The facility must allow for appropriate stormwater controls and must not significantly affect wetlands, floodplains, waters of the United States, threatened and endangered species, or known cultural resources.

1.5.7 Facility Demolition

The proposed action is to demolish three buildings and the existing canopy and fuel tanks at Building 1685 (a former AAFES gas station). The three buildings to be demolished are Building 1429 (a generator building), Building 1679 (Chapel 3), and Building 1732 (the West Heat Plant). The purpose of the proposed action is to support future mission requirements at the Base by demolishing unneeded facilities. Table 1-1 provides information on the facilities to be demolished.

The following selection standards apply to the proposed facility demolitions:

- Environmental: Waste must be disposed of properly and in accordance with applicable laws and regulations, erosion and stormwater runoff controls must be used during the demolitions, and vegetative cover must be reestablished on the vacated sites.

Table 1-1. Facilities to be demolished

Building number	Proposed action	Purpose	Year proposed	Building size (SF)
1429	Demolish Building 1429 (generator building)	The building is old (constructed in 1955) and no longer used. Cinder block walls are crumbling and deteriorating, posing a potential safety risk.	2013	797
1679	Demolish Building 1679 (Chapel 3)	The building has mold and structural fractures, creating a safety and health hazard.	2013	12,148
1732	Demolish Building 1732 (heat plant) and an aboveground storage tank	The building is no longer needed (it is a steam electrical plant; steam is no longer used on JBA).	2013	5,514
1685	Demolish AAFES canopy and fuel tanks	A new gas station has been constructed, so the canopy and fuel tanks at Building 1685 are no longer needed.	2013	N/A

1.5.8 Gate Modifications

General access to and from the Base is provided by five ECFs: Main Gate, North Gate, Maryland Gate, Virginia Gate, and Pearl Harbor Gate. The Main Gate serves traffic from the northwest and is accessible via Allentown Road and Suitland Road. This ECF serves visitors to the Base and normally operates 24 hours a day, 7 days a week. The Main Gate handles almost half of all traffic during both the morning inbound and afternoon outbound peak periods. Additionally, over a 24-hour period, the Main Gate handles almost two-thirds of all inbound and outbound traffic.

The Pearl Harbor Gate serves traffic from the east and is accessible from Dower House Road via Pennsylvania Avenue (Maryland 4). This ECF is restricted to commercial traffic (deliveries and

contractors) and normally operates 24 hours a day, 7 days a week. A POV lane was added to the Pearl Harbor Gate in the spring of 2010.

The Virginia Gate serves traffic from the south and is accessible via Old Alexandria Ferry Road. Normal hours of operation at this ECF are Monday through Friday 5:00 a.m.–11:00 p.m. Virginia Gate handles approximately one-third of all traffic during both the morning inbound and afternoon outbound peak periods. Virginia Gate does not have a dedicated vehicle inspection area like other ECFs, so any required or random inspection during the morning peak period occurs in one of the closed checkpoint lanes or the area of unused pavement just after the checkpoint.

The proposed action is to modify the Main Gate, Pearl Harbor Gate, and Virginia Gate. The purpose of and need for the proposed modifications is to address and correct deficiencies at the gates related to safety and the security of the ECF areas, and to bring them into accordance with standards as prescribed in the U.S. Army Corps of Engineers (USACE) Unified Facilities Criteria (UFC) 4-022-01 (*Security Engineering: Entry Control Facilities/Access Control Points*); the Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) Pamphlet 55-15 (*Traffic and Safety Engineering for Better Entry Control Facilities*); the U.S. Department of Transportation, Federal Highway Administration *Manual on Uniform Traffic Control Devices* (MUTCD); and the American Association of State Highway and Transportation Officials (AASHTO) Greenbook (*A Policy on Geometric Design of Highways and Streets*). Modifications at the three gate areas would also relieve congestion at intersections near the gates that operate above their capacity during peak periods. Table 1-2 provides information on the proposed gate modifications.

The following selection standards apply to the proposed gate modifications project:

- Size: Each gate must accommodate the anticipated amount of traffic at peak periods with a reasonable level of service and wait time.
- Security: Each gate must provide for adequate safety and security of the entry control facilities and comply with standards as prescribed in UFC 4-022-01, SDDCTEA Pamphlet 55-15, MUTCD, and the AASHTO Greenbook.
- Environmental: Each gate facility must allow for appropriate stormwater controls.

Table 1-2. Needs and deficiencies at the Main, Pearl Harbor, and Virginia Gates

Need or deficiency	Main Gate	Pearl Harbor Gate	Virginia Gate
Add a chase vehicle parking spot	●	●	●
Add curvature in the POV response zone to keep a threat vehicle's speed to a minimum	●	●	●
Add to each lane a sleeve for a manual drop in bollard that can be put in place for lane closure	●	●	●
Provide an emergency communication device to alert the over watch to engage the barriers	●	●	●
Provide an emergency switch to activate railroad-type drop-arm bars located just before all AVBs	●	●	●
Move the AVB to provide adequate distance to mitigate the vehicle borne threats	●	●	●
Install standardized signs and signals at the AVBs	●		●
Install crash attenuation at concrete island ends	●		●
Install serpentines (non-crash rated bollards or swing gates) to force vehicle traffic to slow down to a crawl and give the over watch more reaction time	●		●
Add additional curvature in the response zone to allow the AVBs to be collocated at the intersection with Perimeter Road	●		●
Install proper lane use control signs approaching the curve in the outbound lanes	●		
Add an improved transition from four lanes at the ID check area to two lanes at the intersection with Perimeter Road	●		
Install wrong-way detection at the rejection point to defeat a threat that tries to gain entry through the outbound lanes after being rejected	●		
Add an advance turnaround for vehicles that mistakenly enter the approach zone		●	
Add a pre-ID check area turnaround		●	
Provide a dedicated area for random inspections or post-ID inspections			●
Install a gate-controlled drop arm adjacent to Vermont Avenue to help prevent motorists from circumventing entry procedures			●

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SECTION 2.0
DESCRIPTION OF PROPOSED ACTIONS AND ALTERNATIVES

The proposed projects analyzed in this EA would be implemented over a 6-year period (Figure 2-1). The exterior and interior design of the new and renovated facilities would follow the design guidelines outlined in the *Air Mobility Command Civil Engineering Squadron Design Guide and the Andrews AFB Architectural Compatibility Design Plan*. Adherence to these standards would maintain a consistent and coherent architectural character throughout JBA. Landscaping in the form of berms, plants, shrubs, and trees, would be used to enhance the professional architectural character, blend the buildings with the surrounding environment and for AT/FP purposes. AT/FP measures would be incorporated in accordance with the *USAF Installation Force Protection Guide*. In addition, the design of construction projects would be consistent with the requirements laid out in Executive Order (EO) 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*.

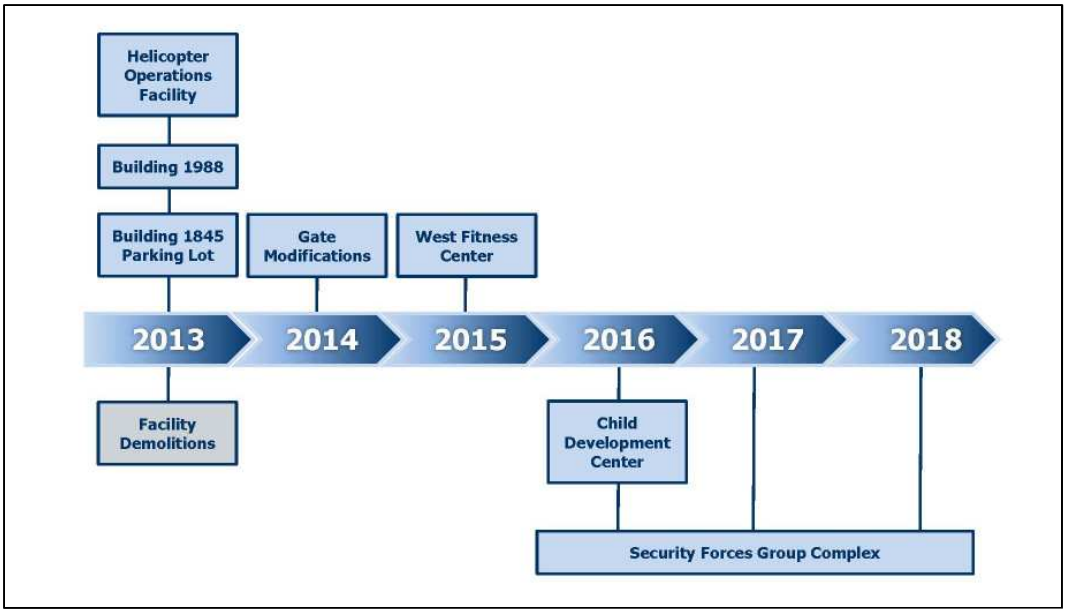


Figure 2-1. Tentative project implementation timeline.

The proposed construction projects would be implemented using sustainable design concepts to the extent practicable. Sustainable design concepts emphasize state-of-the-art strategies for site development, efficient water and energy use, and improved indoor environmental quality. Facilities would be constructed to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards. Each project has been sited to have minimum effects on JBA's natural or socioeconomic environment. To continue enhancing the compatibility of designated land uses at JBA, the proposed new facilities would be constructed in appropriate land use areas across the installation and in compliance with the Maryland Department of the Environment (MDE) Water Management Administration requirements.

None of the projects proposed in this EA would affect floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources. The siting of each of the projects, approximately as shown in Figure 2-2, was selected during the planning process for each project on the basis of mission requirements, environmental considerations, and overall Base planning guidelines. The precise layout and design of these projects is in the early planning stages, and the exact surveyed locations and layouts are not finalized. If the projects' locations, final layout, or potential environmental consequences differ substantially from those anticipated, further environmental analysis would be completed. If it is determined that future projects, conceived outside this IDEA, affect sensitive resources, separate environmental analysis would be completed.

The individual proposed actions are described in detail below.

2.1 HELICOPTER OPERATIONS FACILITY CONSTRUCTION

2.1.1 Proposed Action

Under this proposed action, an HOF would be constructed on the north side of G Street along the west flightline adjacent to Hangar 1 and the south ramp (Figure 2-3). The new facility would have two stories with a total area of approximately 60,000 SF. Construction would include site clearance, excavation, foundation and floor, utility and infrastructure systems, a concrete block exterior with brick facing, a standing seam metal roof, a fire suppression system, a parking lot, landscaping, stormwater management, and relocation of the Pathfinder fence so that the HOF would be inside it. Note that the proposed action for the HOF does not include changes in personnel or operations for the 1HS or the 811OSS, as these changes were analyzed in the JBA 2007 *Final Environmental Assessment for FY07-11 BRAC Construction Requirements at Andrews Air Force Base, Maryland*.

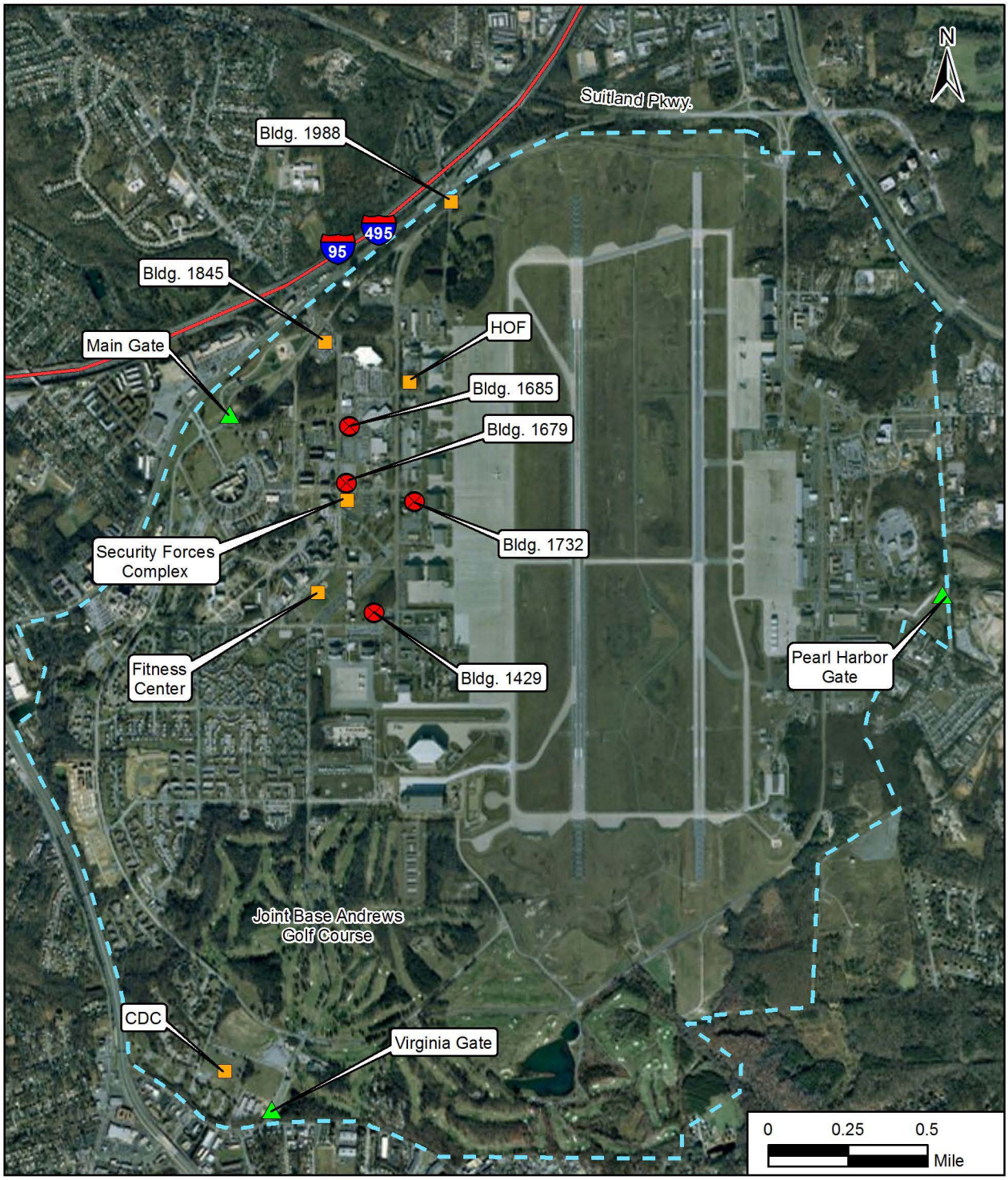
A construction laydown area would be established in the vicinity of the site proposed for the HOF. A possible site is north of Fairbanks Street and east of Arnold Avenue. An 8-foot solid screen fence would be established at this site to screen the site from the Executive Route along Arnold Avenue and construction traffic control would be established to avoid conflicts between construction traffic and traffic along Arnold Avenue.

2.1.2 No Action Alternative

Under the No Action Alternative, an HOF would not be constructed. Personnel from the 1HS and the 811OSS would continue to occupy a hangar that is ill-equipped to accommodate them and would be unable to meet their 200 percent mission increase. With 140 new personnel and seven new aircraft arriving by FY 16, the space deficit would require these organizations to further disperse, causing mission failure because of the immediate response requirements of their contingency response mission. Temporary trailers totaling 4,000 SF would continue to be used on the hangar floor for office space and aircrew flight equipment workshop space, at a direct cost to the mission, because they occupy precious aircraft and maintenance space.

2.1.3 Alternatives Considered but Eliminated from Further Consideration

A site near the south end of the west flightline near Hangars 8 and 9 was also considered for the HOF, but it did not offer adequate space to support all 1HS assets and, therefore, would not meet the purpose and need of the action. The site was eliminated from further consideration. Another location along Fairbanks Street in the vicinity of the selected location was also considered. It was



LEGEND

- JBA Boundary
- Facilities to be Removed
- New Construction
- Gates to be Upgraded

Locations of Proposed Projects

Figure 2-2

Proposed Location of the Helicopter Operations Facility

Figure 2-3

eliminated from further consideration because it could not meet the rapid alert response required for the 1HS mission: flight crews must be able to exit the building and be to their helicopters within three minutes of being alerted.

2.2 WEST FITNESS CENTER REPLACEMENT

2.2.1 Proposed Action

Under the proposed action, a fitness center (including courts for basketball, volleyball, and racquetball; cardiovascular rooms; a health and wellness center; men's and women's locker rooms; weight training rooms; a stretching area; a group exercise area; an indoor six-lane lap pool; an indoor running track; distinguished visitor locker rooms; a sauna; food demonstration areas; storage; laundry; and administration space) would be constructed southeast of the existing West Fitness Center where there are recreational fields (Figure 2-4). The new facility would have an area of approximately 84,000 SF. Construction would include site clearance, excavation, a reinforced concrete foundation and floor, masonry exterior with brick, a standing seam metal roof, parking, utilities connections, soil remediation, landscaping, and stormwater management. Construction of the new center would require the removal of some recreational ball fields. JBA would determine whether to replace the fields in a separate decision process.

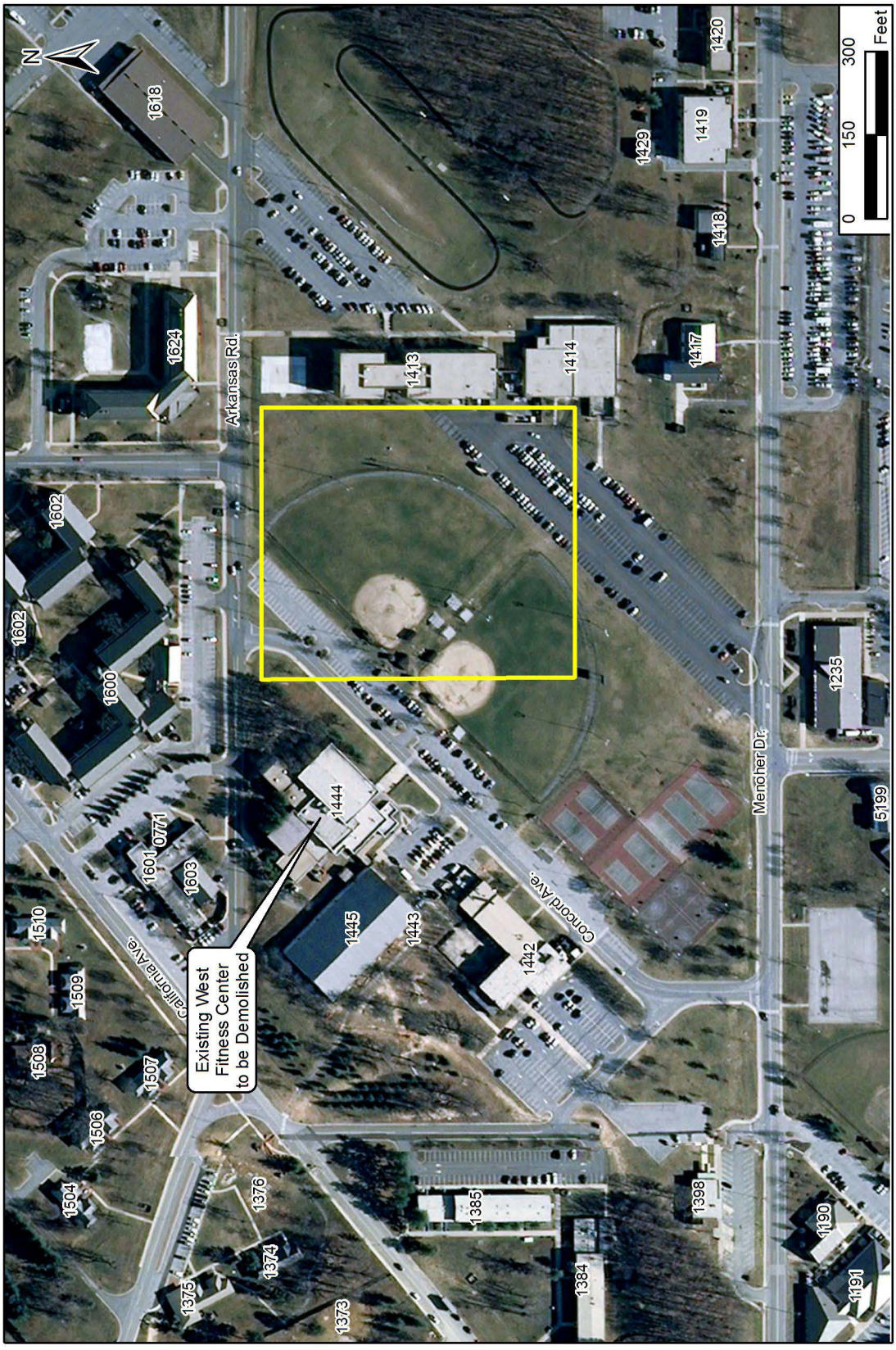
The West Fitness Center, with an area of 42,055 SF, would be demolished after the new fitness center was constructed. Demolition would consist of the complete tear down and demolition of building structures, equipment, and related impervious surfaces such as parking lots in the building demolition project area. Utilities at the project site would be capped and left in place. Solid and hazardous waste (including asbestos-containing materials [ACM] and lead-based paint [LBP]) would be disposed of consistent with federal, state, and Base requirements. The Base would identify potential recycling opportunities, such as copper piping, aluminum, and steel, and coordinate with the demolition contractor to ensure that materials generated during demolition are recycled to the greatest extent possible.

2.2.2 No Action Alternative

Under the No Action Alternative, a new fitness center would not be constructed. Physical conditioning and recreational programs would continue to be limited because of facility shortcomings. The West Fitness Center would continue to be substandard and inefficient, other Base fitness centers would still be overcrowded, and military fitness and readiness requirements would still be adversely affected. Some programs would be curtailed, and some would be discontinued because of poorly configured and inadequate facilities. Expensive renovations and repairs would be made perpetually at the West Fitness Center. The problem would become worse as other missions move to JBA, adversely affecting the overall Base mission, morale, and the retention of highly trained and professional Air Force personnel.

2.2.3 Alternatives Considered but Eliminated from Further Consideration

The proposed location of the new fitness center is within JBA's planned Town Center-Readiness Complex area, which is intended to be a pedestrian-oriented central hub for community activities anchored by the new fitness center. The Town Center design is a package that balances the locations of retail, dining, customer service, personal service, and other base-wide community services with the proximity to likely users. The fitness center is designed to be within easy walking distance from the dorm complex to the north, the Visiting Officer's Quarters and Conference Center to the west, the customer service/retail core of the the Town Center to the



Proposed Location of the New West Fitness Center

Figure 2-4

southwest, and the Squadron Operations and flightline facilities to the southeast, east, and northeast. Locating the fitness center to other west-base locations would have required the provision of additional impervious parking areas and a more robust road network to serve it, as well as a wholesale redesign of the General Plan Area Development Plans for the West Administrative Campus, Squadron Operations Quadrant, and west side Industrial Area. Locating the new fitness center out of the Readiness Complex to another area of the Town Center would require a substantial redesign of the functional relationships between uses in the Town Center. As such, locations on JBA other than within the proposed Town Center-Readiness Complex area were not considered.

2.3 CHILD DEVELOPMENT CENTER REPLACEMENT

2.3.1 Proposed Action

Under the proposed action, CDC #1 (Building 4575) would be replaced with an approximately 41,100-SF CDC in the southern portion of the Base near the Virginia Gate between Vermont Road and Youngstown Road (Figure 2-5); this is the only vacant site in the area large enough to accommodate a standard CDC and meet the AT/FP requirements required for the CDC and the Virginia Gate. The new CDC would be a single-story structure with a reinforced concrete foundation and floor slab, brick veneer and finish system with accents and architectural characteristics in accordance with the JBA Architectural Compatibility Plan, and a standing seam metal roof. The facility would have a pick-up/drop-off area with entrance canopy, parking lot, outdoor play area, multipurpose room, utility spaces, utility connections, and access. Site work would include excavation, site preparation, landscaping, and stormwater management. The design would integrate facility space to accommodate the Family Childcare Program (requiring 1,960 SF of space and including a separate exterior facility entrance and associated parking), while ensuring proper separation of functions to maintain child security. Construction of the new CDC would require the removal of some soccer fields. JBA would determine whether to replace the fields in a separate decision process.

CDC #1 (Building 4575) would be demolished. Demolition would consist of the complete tear down and demolition of building structures, equipment, and related impervious surfaces such as parking lots in the building demolition project area, and removal of two abandoned-in-place underground storage tanks (USTs). Utilities at the project site would be capped and left in place. Solid and hazardous waste (including ACM and LBP) would be disposed of consistent with federal, state, and Base requirements for handling and disposal, and a waste disposition report detailing the disposal location provided to the Base. The Base would identify potential recycling opportunities for materials such as copper piping, aluminum, and steel, and would coordinate with the demolition contractor to ensure that materials generated during demolition are recycled to the greatest extent possible.

2.3.2 No Action Alternative

Under the No Action Alternative, a new CDC would not be constructed. Families would continue to use more expensive off-Base programs or possibly unlicensed baby sitters. These off-Base costs—typically $8,400 per year more than on-Base costs—would continue to create a severe financial strain on military personnel. Mold in CDC #1 would pose a continued hazard to children's health, and the office space used in CDC #1 for the Family Childcare Resource Center would continue to be inadequate in both size and function.

Proposed Location of the Child Development Center

Figure 2-5

LEGEND

JBA Boundary

Proposed Location of New CDC

2.3.3 Alternatives Considered but Eliminated from Further Consideration

Repairing CDC #1 was considered but eliminated from consideration because of the age and condition of the building. CDC #1 is nearly 70 years old (it was constructed in 1943); it does not meet AT/FP standards; it has multiple rooms that are unusable for various reasons, including mold behind some walls; some classrooms do not have required water fountains; it has only a small kitchen with no walk-in freezer, which makes meal preparation difficult; and has an old HVAC system that often does not function properly. Enlarging CDC #1 on the current location was eliminated from consideration because the site is not of sufficient size. Locations not near the Virginia Gate were not considered because CDC #1 is meant to provide efficient and convenient drop-off of children for parents entering and exiting the base at the Virginia Gate.

2.4 SECURITY FORCES GROUP COMPLEX CONSTRUCTION

2.4.1 Proposed Action

Under the proposed action, a Security Forces Group complex with an area of approximately 86,000 SF would be constructed at the southeast corner of the intersection of Brookley Avenue and D Street (Figure 2-6), near the newly built Squadron Operations facility (Building 1658). The facility would have a reinforced concrete foundation and floor, block masonry with brick facing, structural steel framing, a standing seam metal roof, fire suppression and detection systems, communications and utilities connections, and a parking lot. Site work would include excavation, site preparation, landscaping, and stormwater management. The Security Forces Group complex would have a Base Defense Operations Center, battle staff room, armory, guard mount area, mobility storage area, supply/logistics section, vehicle section, weapons cleaning area, command area, operations area, quality control and standards evaluation area, control center, training area, and detention area. No changes in the type or frequency of Security Forces Group operations would result from the proposed construction.

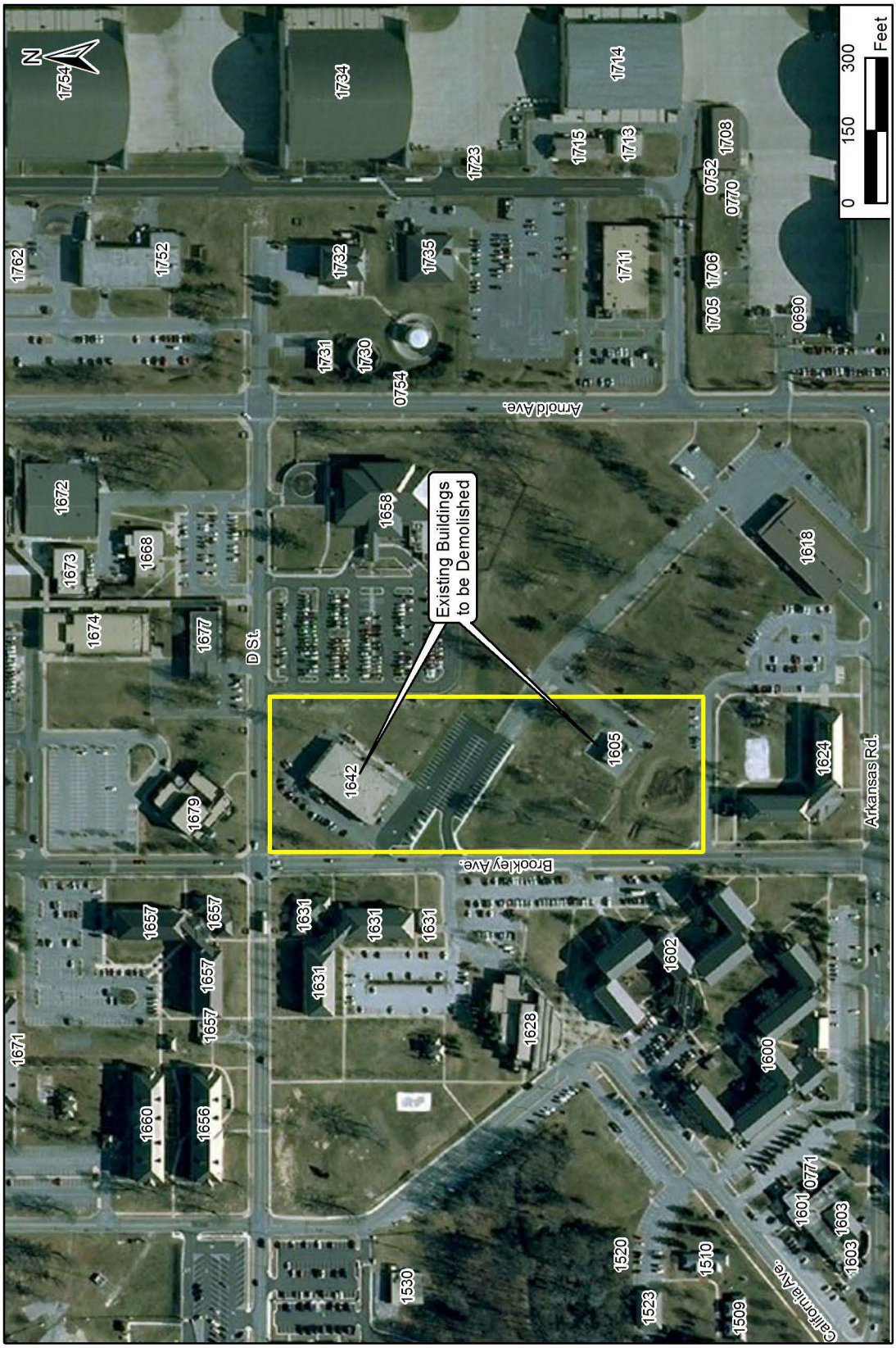
The proposed action includes demolishing Building 1642 (the Base library) and Building 1605 (a POV wash rack), because these two buildings are on the site proposed for the new complex. Reconfigured library services would be moved to the Community Activity Center (Building 1442) into a more compact footprint, and the POV wash rack would not be replaced. Demolition of Buildings 1642 and 1605 would consist of the complete tear down and demolition of building structures, equipment, and related impervious surfaces such as parking lots in the building demolition project areas. Utilities at the project site would be capped and left in place.

2.4.2 No Action Alternative

Under the No Action Alternative, a Security Forces Group complex would not be constructed. Security Forces Group operations would continue to be conducted from undersized facilities in locations that are poorly suited to support a rapid response, limiting the ability of the 11th Security Forces Group to provide effective force protection at JBA.

2.4.3 Alternatives Considered but Eliminated from Further Consideration

The 2010 General Plan Update includes an Squadron Operations Quadrant Area Development Plan, with the newly built Squadron Operations facility (Building 1658) providing the anchor for further development of operations-related facilities in the Operations Quadrant Area. USAF planners determined during the General Plan deliberations that the selected location of the Squardon Operations Quad Area was the best location because it is in the center of the west side of the base and would have easy access to the flightline. A close mission relationship exists



LEGEND

Proposed Location of Security Forces Group Complex

Proposed Location of Security Forces Group Complex

Figure 2-6

between Squadron Operations and the Security Forces Group. As such, locations for a Security Forces Group complex outside the Squardon Operations Quad Area were not considered.

2.5 BUILDING 1845 PARKING LOT ADDITION

2.5.1 Proposed Action

Under the proposed action, the parking lot adjacent to Building 1845 (used by the Security Police Operations) would be enlarged by approximately 40 percent (from 93,110 SF to approximately 133,000 SF), adding approximately 100 parking spaces. This action would provide sufficient parking for Building 1845 personnel so they no longer have to seek out alternate parking locations.

2.5.2 No Action Alternative

Under the No Action Alternative, the parking lot at Building 1845 would not be enlarged. Personnel who report to the building would continue to park in various locations on Base rather than at Building 1845.

2.5.3 Alternatives Considered but Eliminated from Further Consideration

No alternatives were considered in developing this project. The purpose of the project is to provide parking at Building 1845, so no other on-Base location for additional parking was considered. Northeast, northwest, and southeast of Building 1845 are not suitable locations for the additional parking because roads and buildings are in those locations, and all other sites that could meet the proximity selection requirement are either wooded or have wetlands, or both. The 100 parking space requirement is based on the number of personnel expected to be working at the building, and providing a greater or fewer number of spaces than necessary was not considered as an option.

2.6 BUILDING 1988 REPLACEMENT

2.6.1 Proposed Action

Under the proposed action, Building 1988, a traffic check house at the intersection of Maryland Drive and North Perimeter Road at the Maryland Gate (see Figure 2-2), would be demolished and replaced with a similar structure at the same location. The Maryland Gate is JBA's only Distinguished Visitor entrance. Demolition of Building 1988 would consist of the complete tear down and demolition of building structures and equipment. The adjoining parking lot would remain. The replacement building would be approximately the same size as the existing structure, but would be configured to correct the security and aesthetic deficiencies of Building 1988: location of door opening, lack of ballistic glass, lack of professional image, and inconsistency with AT/FP requirements.

2.6.2 No Action Alternative

Under the No Action Alternative, Building 1988 would not be demolished and no new traffic check house would be constructed. The deficiencies noted above for Building 1988 would not be corrected, placing Security Forces Group personnel at risk and presenting an unprofessional image to JBA's Distinguished Visitors.

2.6.3 Alternatives Considered but Eliminated from Further Consideration

No alternatives were considered in developing this project. The deficiencies noted for Building 1988 need to be corrected for personnel security and to meet regulatory requirements. No other locations for a new traffic check house were considered because the new traffic check house must be located to serve the Maryland Gate, and the configuration of the gate and the security requirement for fast and unimpeded flow through the gate make the selected location the only possible location.

2.7 FACILITY DEMOLITION

2.7.1 Proposed Action

The proposed projects are to demolish three buildings (Buildings 1429, 1679, and 1732) and the canopy and fuel tanks at Building 1685 (Figure 2-7). Table 1-1 provides a brief overview of these demolition projects.

These facilities do not serve mission requirements and would be costly to repair or renovate to meet the future mission requirements of JBA. Although the facilities were evaluated for reuse, none were deemed suitable to accommodate anticipated mission requirements and they were recommended for demolition.

Demolition of each facility would consist of the complete tear down and demolition of building structures, equipment, and related impervious surfaces such as parking lots in the building demolition project area, and removal of an AST at Building 1732 and fuel tanks at Building 1685. Utilities at the project sites would be capped and left in place.

2.7.2 No Action Alternative

Under the No Action Alternative, the facilities mentioned above would not be demolished. Any building not demolished would either continue to be used in some capacity (if the condition of the building permits) or closed and minimally maintained indefinitely or until an alternative use could be determined. Using a subpar building for any purpose would contravene the USAF's policy to manage its assets effectively and efficiently and would incur ongoing costs for maintenance and security. Space occupied by the building(s) would not be available for other, more mission-essential purposes.

2.7.3 Alternatives Considered but Eliminated from Further Consideration

No alternatives were identified for the buildings that are to be demolished. For all facilities identified for demolition, JBA considered reuse of the facilities and deemed the alternative not feasible for current or foreseeable future use and to not be economical. JBA determined that facility demolition was the only reasonable option.

2.8 GATE MODIFICATIONS (MAIN, PEARL HARBOR, VIRGINIA)

2.8.1 Proposed Actions

The proposed action is to modify the Main Gate, Pearl Harbor Gate, and Virginia Gate (see Figure 2-2). Each gate modification would address and correct deficiencies related to the safety and security of the ECF as required by UFC 4-022-01, SDDCTEA Pamphlet 55-15, MUTCD,

Locations of Buildings to Be Demolished

Figure 2-7

and the AASHTO Greenbook. The proposed modifications at each of the gates are listed in Table 1-2.

2.8.2 No Action Alternative

Under the No Action Alternative, the gates would not be modified to address safety and security deficiencies. The noted deficiencies would not be corrected, and the gates would remain noncompliant with UFC 4-022-01, SDDCTEA Pamphlet 55-15, MUTCD, and the AASHTO Greenbook.

2.8.3 Alternatives Considered but Eliminated from Further Consideration

One alternative was identified for the gate modifications. The gates could be closed, demolished, and reconstructed to meet specifications. This alternative was determined to be unreasonable because none of the gates require full replacement or relocation; they simply must be brought up to standards and requirements. Summary of Proposed Projects and Effects

As a result of the proposed actions, approximately 100,000 SF of building space would be demolished and over the course of the next 5 years approximately 300,000 SF of new facilities would be developed, resulting in an anticipated increase of approximately 200,000 SF of built space.

The proposed projects analyzed in this IDEA are independent of one another. No project would be contingent upon another project being completed; any individual project could be implemented without affecting other projects. All the projects are evaluated individually and cumulatively in this EA to determine whether the consequences of implementation would cause significant effects on the human and natural environments of JBA and surrounding areas.

Table 2-1 summarizes the expected environmental effects of implementing the actions proposed in the IDEA. No effects would be expected on safety and occupational health, biological resources (including wetlands and threatened or endangered species), floodplains, cultural resources, environmental justice, and land use.

Short-term minor adverse effects would be expected on earth resources, water resources, transportation, hazardous materials and wastes, and the protection of children. These effects would be attributable primarily to construction activities, which involve soils disturbance, minor amounts of sediment loss in stormwater, minor spills of petroleum and lubricants, and minor hazards to children. All these effects are controllable through the use of appropriate BMPs, and they last no longer than the period of construction.

Long-term minor adverse effects would be expected on infrastructure and utilities. Outdated facilities would be replaced with new, energy-efficient ones, but the proposed construction projects would increase the square footage of built space on JBA and increase the demand for utilities.

Short- and long-term minor adverse effects would be expected on noise and air quality. Construction noise and emissions from equipment and fugitive dust would create short-term adverse effects, and facility operations would create long-term effects on the noise environment from the generators and new boilers.

Table 2-1.
Summary of potential environmental consequences

	Environmental effects	
Resource	**Proposed action**	**No action alternative**
Noise	Short- and long-term minor adverse	No effects
Air quality	Short- and long-term minor adverse	No effects
Safety and occupational health	No effects	Long-term minor adverse
Earth resources	Short-term minor adverse	No effects
Water resources	Short-term minor adverse	No effects
Infrastructure and utilities	Long-term minor adverse	No effects
Transportation	Short-term minor adverse	No effects
Hazardous materials and wastes	Short-term minor adverse	No effects
Biological resources	No effects	No effects
Cultural resources	No effects	No effects
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Environmental justice	No effects	No effects
Protection of children	Short-term minor adverse	No effects
Land use	No effects	No effects
Sustainability and greening	Long-term minor beneficial	Long-term minor adverse
Cumulative effects	Minor beneficial and adverse	N/A

Short- and long-term minor beneficial effects would be expected on socioeconomics. Construction and demolition projects would have an overall beneficial effect on local employment and income.

Long-term minor beneficial effects would be expected on sustainability and greening. Replacing outdated, inefficient facilities with new, energy-efficient ones would improve the long-term operational efficiency of facilities at JBA.

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SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 NOISE

3.1.1 Affected Environment

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as construction or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz are used to quantify sound frequency. The human ear responds differently to different frequencies. *A-weighing*, measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their dBA levels are provided in Table 3-1.

Table 3-1.
Common sounds and their levels

Outdoor	Sound level (dBA)	Indoor
Motorcycle	100	Subway train
Tractor	90	Garbage disposal
Noisy restaurant	85	Blender
Downtown (large city)	80	Ringing telephone
Freeway traffic	70	TV audio
Normal conversation	60	Sewing machine
Rainfall	50	Refrigerator
Quiet residential area	40	Library

Source: Harris 1998

The dBA noise metric describes steady noise levels, although very few noises are, in fact, constant. Therefore, A-weighted Day-night Sound Level has been developed. Day-night Sound Level (DNL) is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to the nighttime levels (10 p.m. to 7 a.m.). DNL is a useful descriptor for noise because (1) it averages ongoing yet intermittent noise, and (2) it measures total sound energy over a 24-hour period. In addition, Equivalent Sound Level (L_{eq}) is often used to describe the overall noise environment. L_{eq} is the average sound level in dB.

The Noise Control Act of 1972 (PL 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. In 1974 the U.S. Environmental Protection Agency (EPA) provided information suggesting continuous and long-term noise levels in excess

of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals. Maryland's Environmental Noise Act of 1974 limits noise to the level that will protect the health, general welfare, and property of the people of the state. Maryland limits both the overall noise environment and the maximum allowable noise level for residential, industrial, and commercial areas (Code of Maryland [COMAR] 26.02.03). Maximum levels cannot exceed 65 dBA in the daytime, and 55 dBA at night in residential areas. In addition, the DNL cannot exceed 55 dBA in residential areas and 64 dBA in commercial areas. For construction and demolition activities a person may not cause or permit noise levels that exceed 90 dBA during daytime hours (7 a.m. to 10 p.m.) (COMAR 26.02.03). Prince George's County maintains a noise ordinance that limits the maximum sound level to 85 dBA in residential areas.

DoD Instruction 4165.57 establishes and requires the military departments to develop, implement, and maintain an Air Installation Compatible Use Zone (AICUZ) program for installations with flying operations. The AICUZ *Program Manager's Guide*, Air Force Handbook (AFH) 32-7084 provides installations an overview of the Air Force's AICUZ Program. AFH 32-7084 outlines noise level reduction (NLR) for new construction exposed to greater than 65 dB DNL. These NLR measures must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas (NSAs) or where the normal noise level is low.

Existing noise levels (L_{eq} and DNL) were estimated for the surrounding areas using the techniques specified in the American National Standards Institute's *Quantities and Procedures for Description and Measurement of Environmental Sound Part 3: Short-term measurements with an observer present.* Table 3-2 outlines the land use category and the estimated background noise levels for nearby NSAs (ANSI 2003).

3.1.2 Environmental Consequences

3.1.2.1 Helicopter Operations Facility Construction

No significant effects on the noise environment would be expected. Short-term increases in noise would be due to construction and demolition activities. Long-term effects would be because of small changes in local activities; however, no substantial permanent sources of noise would be associated with the action.

Table 3-3 presents typical noise levels (dBA at 50 feet) that EPA has estimated for the main phases of outdoor construction. Individual pieces of construction and demolition equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. With multiple items of equipment operating concurrently, noise levels can be relatively high in the daytime at locations within several hundred feet of active construction and demolition sites. The zone of relatively high construction noise typically extends 400 to 800 feet from the site of major equipment operations (Figure 3-1).

Table 3-4 presents the estimated noise level and the level of short-term effects from construction and demolition. Because of the temporary nature of proposed construction and demolition activities and the limited amount of noise that heavy equipment would generate, this effect would be minor. No nearby NSA would experience appreciable noise from heavy equipment. In addition, limited truck and worker traffic could be audible at some nearby locations having minor adverse effects.

Table 3-2.
Estimated background noise levels at nearby NSAs

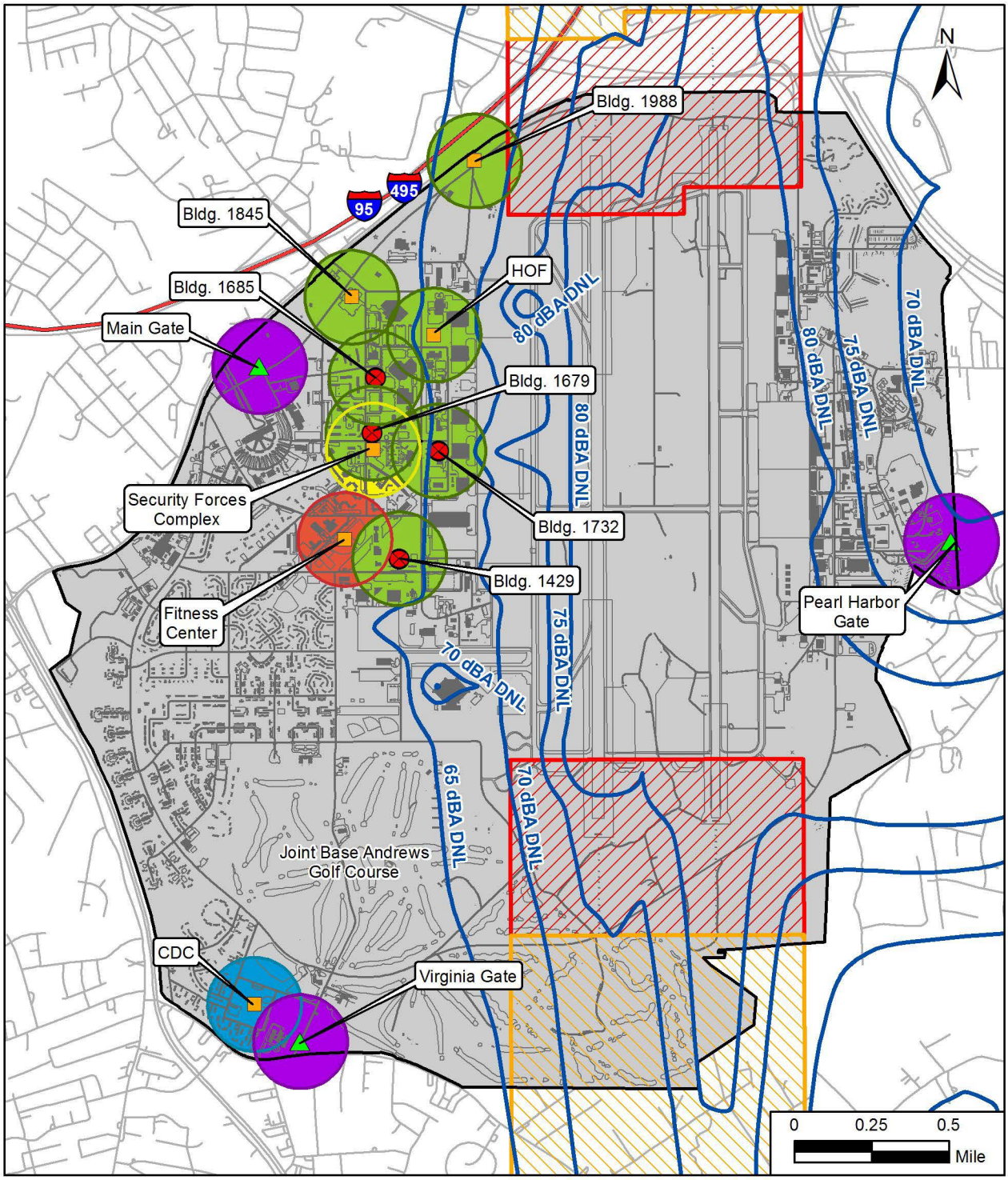
Closest NSA				Estimated existing sound level (dBA)			
Location	**Distance (feet)**	**Direction**	**Type**	**Land use category**	**DNL**	**L_{eq} (daytime)**	**L_{eq} (nighttime)**
Helicopter Operations Facility	3,300	Northwest	Residential	Noisy Urban Residential	65	64	57
Security Forces Group Complex	2,424	Northwest	School				
West Fitness center	563	South	Residential	Urban and Noisy Suburban Residential	60	58	52
Child Development Center	131	West	Residential				
Building 1845	1,335	North	Residential				
Building 1988	1,070	West	Residential				
Facilities to be removed	2,638	Northwest	Residential				
Gate with substantial construction upgrades: Main Gate[1]	1,293	North	Residential				

Source: ANSI 2003
[1] The Main Gate would have the bulk of the construction-related upgrades; other gates would have substantially less heavy equipment use and associated noise. Effects at gates other than the Main Gate would be negligible.

Table 3-3.
Noise levels associated with outdoor construction

Construction phase	L_{eq} (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA 1971



LEGEND

- Installation Property
- Facilities to be Removed
- New Construction
- Gates to be Upgraded
- Clear Zone
- Accident Potential Zone I

Construction Noise Area by Project Year

- 2013
- 2014
- 2015
- 2016
- 2016-2018

Existing Aircraft Noise Contours - Day Night Level (DNL) [dBA]

HOF: Helicopter Operations Facility
CDC: Child Development Center

Noise Impacts

Figure 3-1

Table 3-4.
Short-term effects from construction noise

Location	Distance (feet)	Estimated noise level with construction (dBA)	Change from existing (dBA)	Perception of noise increases	NSA closer than 800 feet?	Level of effects
Helicopter Operations Facility	3,300	64.1	0.5	Not perceptible	No	Minor
West Fitness Center	563	64.9	6.9	Readily perceptible	Yes	Minor
Child Development Center	131	76.7	18.7	More than a doubling in loudness	Yes	Minor
Security Forces Group Complex	2,424	58.8	0.2	Not perceptible	No	Minor
Building 1845	1,335	64.7	0.7	Not perceptible	No	Minor
Building 1988	1,070	65.0	1.0	Not perceptible	No	Minor
Facility demolition	2,638	58.7	0.7	Not perceptible	No	Minor
Gate with substantial construction upgrades: Main Gate[1]	1,293	64.8	0.7	Not perceptible	Yes	Minor
Overall short-term effects						**Minor**

Sources: FHWA 2011
[1] The Main Gate would have the bulk of the construction related upgrades at other gates would have substantially less heavy equipment use and associated noise. Effects at gates other than the Main Gate would be negligible.
Note: Construction noise would be temporary and end with the construction phase of each project.

The HOF would be within the 65 dB DNL noise contour; therefore, the facility would need NLR measures outlined in AFH 32-7084. JBA would evaluate acoustical design considerations for façade elements and interior design requirements in accordance with UFCs 3-101-01 and 3-450-01.

No long-term increases in the overall noise environment (e.g., L_{eq}, A-weighted DNL) would be expected from implementing the proposed actions. No new permanent sources of noise would be associated with the proposed actions. Therefore, no noticeable long-term changes in the existing noise environment would be expected. These effects would be minor. Limited worker traffic might be audible at some nearby locations having minor adverse effects.

3.1.2.2 West Fitness Center Replacement

No significant effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction and demolition activities associated with the proposed Fitness Center. Some nearby NSAs would experience appreciable noise from heavy equipment; however, the levels would not be expected to exceed threshold outlined in the state or county noise ordinances. No military training activities, use of weaponry, demolitions, or changes in aircraft operations would occur. The Fitness Center would not be within the 65 dB DNL noise contour; therefore, the facility would not need NLR measures outlined in AFH 32-7084. All other applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.3 Child Development Center Replacement

No significant effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction and demolition activities associated with the CDC. The closest residence is 131 feet to the west of the proposed CDC construction site. Noise from construction is expected to be clearly audible to loud during daytimes hours. Some nearby NSAs would experience appreciable noise from heavy equipment; however, the levels would not be expected to exceed threshold outlined in the state or county noise ordinances. No military training activities, use of weaponry, demolitions, or changes in aircraft operations would occur. The CDC would not be within the 65 dB DNL noise contour; therefore, the facility would not need NLR measures outlined in AFH 32-7084. All other applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.4 Security Forces Group Complex Construction

No significant effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction and demolition activities associated with the Security Forces Group Complex. No nearby NSA would experience appreciable noise from heavy equipment. Table 3-5 outlines the estimated noise levels and the level of long-term effects from the proposed generator. The generator has an estimated reference sound level of 110 dBA at 25 feet. The generator is strictly for back-up purposes and would operate only during emergencies. Some nearby NSAs would experience appreciable increases in their long-term noise environment from the generator operation. No military training activities, use of weaponry, demolitions, or changes in aircraft operations would occur. The Security Forces Group Complex would not be within the 65 dB DNL noise contour; therefore, the facility would not need NLR measures outlined in AFH 32-7084. All other applicable regulations and BMPs would be similar to those outlined under the HOF.

Table 3-5.
Long-term effects from operation of the security forces group complex

Location	Distance (feet)	Estimated noise level (dBA)	Change from existing (dBA)	Perception of noise increases	Level of effects
Security Forces Group Complex (generator)	2,424	76.4	12.4	Doubling in loudness during power interruptions	Minor

3.1.2.5 Building 1845 Parking Lot Addition

No significant effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction activities associated with the parking addition. No nearby NSA would experience appreciable noise from heavy equipment. All applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.6 Building 1988 Replacement

No significant effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction activities associated with the building replacement. No nearby NSA would experience appreciable noise from heavy equipment. All applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.7 Facility Demolition

Short-term minor adverse effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from activities associated with facility removal. No nearby NSA would experience appreciable noise from heavy equipment. All applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.8 Gate Modifications

Short-term minor adverse effects would be expected. Table 3-4 outlines the estimated noise level and the level of short-term effects from construction activities associated with the Main Gate modifications. Some nearby NSAs would experience appreciable noise from heavy equipment; however, levels would not be expected to exceed threshold outlined in the state or county noise ordinances. The Main Gate would have the bulk of the construction-related upgrades. Other gates would have substantially less heavy equipment use and associated noise. Effects at gates other than the Main Gate would be negligible. All applicable regulations and BMPs would be similar to those outlined under the HOF.

3.1.2.9 No Action Alternative

No adverse effects on the noise environment would result from selecting the No Action Alternative. The construction and demolition projects proposed in the EA would not occur, and noise conditions would remain unchanged as compared to existing conditions.

3.2 AIR QUALITY

3.2.1 Affected Environment

EPA Region 3 and MDE regulate air quality in Maryland. The Clean Air Act (42 U.S.C. 7401-7671q), as amended, assigns EPA responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) that specify acceptable concentration levels of six criteria pollutants: particulate matter (measured as both particulate matter smaller than 10 microns [PM_{10}] and particulate matter smaller than 2.5 microns [$PM_{2.5}$]), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards stricter than the federal standards; Maryland has accepted the federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment* areas. Federal regulations designate AQCRs with levels below the NAAQS as *attainment* areas. According to the severity of the pollution problem, O_3 and PM_{10} nonattainment areas can be categorized as marginal, moderate, serious, severe, or extreme.

Prince George's County (and therefore all areas associated with the action) is within the National Capital Interstate AQCR (AQCR 47) (40 CFR 81.12). EPA has designated Prince George's County as moderate nonattainment for the 1997 8-hour O_3 NAAQS, marginal nonattainment for the 2008 8-hour O_3 NAAQS, and nonattainment for the $PM_{2.5}$ NAAQS (USEPA 2012a). Also, the county is in the Ozone Transport Region, which includes 12 states and the District of Columbia. EPA monitors levels of criteria pollutants at representative sites in each region throughout

Maryland. The CO maintenance area for Washington DC extends to Prince Georges County's election districts 2, 6, 16, 17, and 18. JBA is within election district 9 and not within the designated CO maintenance area. For reference purposes, Table 3-6 shows the monitored concentrations of criteria pollutants at the monitoring location closest to JBA.

Table 3-6.
Air quality standards and monitored data

Pollutant	Air quality standards	Monitored data
CO		
1-hour[a] (ppm)	35	1.3
8-hour[a] (ppm)	9	0.8
NO_2		
1-hour (ppb)	100	<no data>
O_3		
8-hour[b] (ppm)	0.075	0.086
SO_2		
1-hour[a] (ppb)	75	12
3-hour[a] (ppm)	0.5	4
$PM_{2.5}$		
24-hour[c] ($\mu g/m^3$)	35	27
Annual arithmetic mean[d] ($\mu g/m^3$)	15	11.8
PM_{10}		
24-hour[a] ($\mu g/m^3$)	150	25

Source: 40 CFR 50.1-50.12; USEPA 2012b
Note: ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter, NO_2 = Nitrogen dioxide
[a] Not to be exceeded more than once per year
[b] The 3-year average of the fourth highest daily maximum 8-hour average O_3 concentrations over each year must not exceed 0.08 ppm.
[c] The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor must not exceed 35 $\mu g/m^3$.
[d] The 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from must not exceed 15.0 $\mu g/m^3$.

JBA holds a synthetic minor operating permit (#033-00655A) that expires January 30, 2017. The permit requirements include making an annual inventory of all significant stationary sources of air emissions for each of the criteria pollutants; monitoring and record-keeping requirements are also included in the permit. Primary stationary sources of air emissions include boilers, generators, and fuel storage areas. Table 3-7 lists JBA's 2011 facility-wide air emissions from all significant stationary sources.

Greenhouse Gases (GHGs) and Climate Change. Climate information for Prince George's County is as follows (Idcide 2012): the average high temperature is 87 degrees Fahrenheit (°F) in the hottest month of July; the average low temperature is 22 °F in the coldest month of January; the average annual precipitation is 43.7 inches per year; and the wettest month is May with an average rainfall of 4.3 inches.

GHGs are components of the atmosphere that trap heat relatively near the surface of the earth and, therefore, contribute to the greenhouse effect and climate change. EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, outlines policies intended to

Table 3-7.
Annual emissions for significant stationary sources at JBA

Pollutant	Emissions (tons per year)
Carbon monoxide (CO)	6.1
Nitrogen oxides (NO_x)	9.5
Volatile organic compounds (VOCs)	2.7
Fine particulate matter ($PM_{2.5}$)	0.0
Fine particulate matter (PM_{10})	0.6
Sulfur dioxide (SO_2)	0.3

Source: JBA 2012

ensure that federal agencies evaluate climate-change risks and vulnerabilities, and to manage the short- and long-term effects of climate change on their operations and mission. The EO requires agencies in the DoD to measure, report, and reduce their GHG emissions from both their direct and indirect activities. The DoD has committed to reduce GHG emissions from non-combat activities 34 percent by 2020 (DoD 2010). In addition, the CEQ recently released draft guidance on when and how federal agencies should consider GHG emissions and climate change in NEPA analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons per year (tpy) (25,000 metric tpy) of CO_2-equivalent emissions from a federal action (CEQ 2010).

Currently, EPA has promulgated two regulations that require the reporting of GHG emissions annually and require an assessment of BACT for new or modified sources permitted after January 2, 2011. The final rules apply to fossil fuel suppliers and industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. The rule does not require control of GHGs, but requires only that sources above certain threshold levels monitor and report emissions. In addition, EPA also recently promulgated the *Tailoring Rule* that established a CO_2e threshold for permitting purposes (i.e., construction and operation) of 75,000 tpy for modifications and 100,000 tpy for new sources. This rule *tailors* the major source permitting rules to apply to GHGs.

3.2.2 Environmental Consequences

3.2.2.1 Helicopter Operations Facility Construction

Short- and long-term minor adverse effects on air quality would be expected with constructing the HOF from generating airborne dust and other pollutants during construction, and long-term effects would be from pollutant emissions from a stationary source, such as a heating boiler. Air quality effects would be minor unless the emissions would exceed the general conformity rule *de minimis* (of minimal importance) threshold values, would exceed the GHG threshold in the draft CEQ guidance, or would contribute to a violation of any federal, state, or local air regulation.

General Conformity. A general conformity applicability analysis was performed and has determined the emissions for the proposed action are below the *de minimis* thresholds; therefore, a general conformity determination is not required.

JBA is in an O_3 transport region and an area designated as nonattainment for the $PM_{2.5}$ standard and moderate nonattainment for the 8-hour O_3 standard. Therefore, the applicability thresholds

for O_3 precursors are 100 tons per year for NO_x and 50 tons per year for VOCs (Table 3-8). For an area in nonattainment for the $PM_{2.5}$ NAAQS, the *de minimis* criterion is 100 tons per year for $PM_{2.5}$, NO_x, and SO_2 (USEPA 2006). VOCs and ammonia were also identified as potential $PM_{2.5}$ precursors. However, neither Maryland nor EPA has found that ammonia contributes to $PM_{2.5}$ problems in this region or other downwind areas. Therefore, ammonia was not carried forward for detailed analysis.

Construction emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gases (Table 3-8). Operational emissions were primarily derived from heating buildings and additional vehicle trips. The estimated emissions from the proposed actions would be below the *de minimis* thresholds, and the general conformity rule would not apply. These effects would be minor. Detailed emission calculations are in Appendix B.

Table 3-8.
Estimated air emissions compared to *de minimis* thresholds

Activity/source	CO[a]	NO_x	VOC	SO_x	PM_{10}[a]	$PM_{2.5}$	*De minimis* threshold (tpy)[b]	Exceeds *de minimis* thresholds? (yes/no)
Construction and demolition emissions (tpy)								
Helicopter Operations Facility construction	5.8	9.5	1.5	2.0	5.0	0.9	100 (50)	No
Fitness Center replacement	12.2	20.1	3.3	4.1	10.6	1.9	100 (50)	No
Child Development Center replacement	5.8	9.5	1.5	2.0	5.0	0.9	100 (50)	No
Security Forces Group complex construction	11.2	18.4	3.0	3.8	9.7	1.7	100 (50)	No
Building 1845 parking addition	0.7	1.2	0.2	0.3	0.6	0.1	100 (50)	No
Building 1988 replacement	0.9	1.4	0.3	0.4	0.9	0.2	100 (50)	No
Facility removal	2.2	3.6	0.6	0.7	1.9	0.3	100 (50)	No
Gate modification	1.4	2.3	0.4	0.5	1.2	0.2	100 (50)	No
Total construction emissions (tpy)	39.8	65.7	10.6	13.5	34.7	6.1	100 (50)	No
Net operational emissions (tpy)								
Helicopter Operations Facility	6.7	1.2	0.7	< 0.1	< 0.1	< 0.1	100 (50)	No
Fitness Center	5.9	1.1	0.6	< 0.1	< 0.1	< 0.1	100 (50)	No
Child Development Center	2.3	0.4	0.2	< 0.1	< 0.1	< 0.1	100 (50)	No
Security Forces Group complex	5.1	0.9	0.5	< 0.1	< 0.1	< 0.1	100 (50)	No
Total net operational emissions (tpy)	20.0	3.6	2.0	< 0.1	< 0.1	< 0.1	100 (50)	No

Notes: [a] Although the general conformity rule does not apply to these pollutants, they have been compared to the applicability thresholds to determine the level of effects under NEPA.
[b] Because the project is in the Ozone Transport Region, the *de minimis* threshold for VOC is 50 tpy.
CO = carbon monoxide, *de minimis* = of minimal importance, NO_x = oxides of nitrogen, $PM_{2.5}$ = particulate matter, less than 2.5 microns in diameter PM_{10} = particulate matter less than 10 microns in diameter, SO_x = oxides of sulfur, tpy = tons per year, VOC = volatile organic compound

For purposes of analysis, emissions estimates were based on the building size (i.e., gross square footage) of a standard building (in this case the HOF) and then the resulting emissions were used to quantify each of the additional projects based on their relative size (i.e., gross square footage). In general, this leads to a doubling in emissions for every doubling in area of a building. Although some projects are scheduled to take longer than a year, it was assumed that all construction and demolition activities would be compressed into one 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those specified herein. Small changes in facilities site and ultimate design, and moderate changes in quantity and types of equipment used would not substantially change these emission estimates and would not change the determination under the general conformity rule or level of effects under NEPA.

New stationary sources of air emissions could be subject to federal and state air permitting regulations, including New Source Review, Prevention of Significant Deterioration, National Emission Standards for Hazardous Air Pollutants, or New Source Performance Standards. New sources of air emissions would be added to the facility's air permit, and both a new source construction permit and a modification to the operating permit could be required. The HOF would be equipped with heating boilers for which air permitting requirements would apply.

MDE outlines requirements with which the developer must comply when constructing the new facilities, such as controlling fugitive dust and open burning. All persons responsible for any operation, process, handling, transportation, or storage facility that could result in fugitive dust would take reasonable precautions to prevent such dust from becoming airborne. Reasonable precautions might include using water to control dust from building construction and demolition, road grading, or land clearing. In addition, construction and demolition would proceed in full compliance with MDE requirements, with compliant practices or products. These requirements include the following:

- Visible emissions (COMAR 26.11.06.02)
- Asphalt paving operations (COMAR 26.11.11.02)
- Open fires (COMAR 26.11.07.05)
- Portable fuel containers (COMAR 26.11.13.07)
- Architectural coatings (COMAR 26.11.33.00)

This listing is not all-inclusive; the Air Force and any contractors would comply with all applicable air pollution control regulations.

GHGs and Climate Change. Construction activities for all the projects combined would generate approximately 5,935 tons (5,384 metric tons) of CO_2, which would be below the CEQ threshold. Operational activities for all the projects combined would generate approximately 3,002 tpy of CO_2, which would be below the CEQ threshold. By using new heating systems, LEED standards, and locating the facilities centrally, the DoD is continuing to implement measures to reach its GHG reduction goals in accordance with EO 13514. These effects would be minor.

Although there would be a net increase in GHG emissions from the Preferred Alternative, it would be less than the major modification threshold of 75,000 tpy under the Tailoring Rule and a PSD and BACT review for GHG would not be required. BACT for GHG is rapidly evolving. In the final design stages and the permitting process, extra care would be taken to ensure compliance with all GHG permitting regulations.

3.2.2.2 West Fitness Center Replacement

Short- and long-term minor adverse effects on air quality would be expected from construction of the fitness center and demolition of the West Fitness Center. The nature of and the overall level of effects would be similar to those described for the HOF. The fitness center would have somewhat higher construction and demolition emissions than the HOF, but it would have somewhat lower operational emissions from net changes in heated space (Table 3-8). The fitness center would be equipped with new boilers for which air permitting requirements would apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG thresholds outlined in the draft CEQ guidance and GHG Tailoring Rules, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those described for the HOF.

3.2.2.3 Child Development Center Replacement

Short- and long-term minor adverse effects on air quality would be expected from construction of the CDC and demolition of CDC #1. The nature of and the overall level of effects would be similar to those described for the HOF. The CDC would have somewhat higher construction and demolition emissions than the HOF, and would have somewhat lower operational emissions from net changes in heated space (Table 3-8). The CDC would be equipped with new boilers for which air permitting requirements would apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG thresholds outlined in the draft CEQ guidance and GHG Tailoring Rules,, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those described for the HOF.

3.2.2.4 Security Forces Group Complex Construction

Short- and long-term minor adverse effects would be expected. The nature of and the overall level of effects would be similar to those described for the HOF. The Security Forces Group Complex would have somewhat higher construction and demolition emissions as the HOF, and would have somewhat lower operational emissions from changes in heated space and worker commutes (Table 3-8). The Security Forces Group Complex would be equipped with new boilers and a generator for which air permitting requirements would apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG thresholds outlined in the draft CEQ guidance and GHG Tailoring Rules,, and the activities would not contribute to a violation of any federal, state, or local air regulation. All permitting requirements, applicable regulations, and BMPs would be similar to those described for the HOF.

3.2.2.5 Building 1845 Parking Lot Addition

Short-term minor adverse effects would be expected. The nature of and overall level of effects would be similar to those of the HOF. The parking addition would have lower construction emissions than those of the HOF, and no changes in operational emissions would result (Table 3-8). No new sources of air emissions would be associated with the parking addition, and air permitting requirements, including the GHG Tailoring Rules, would not apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG threshold in the draft CEQ guidance, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those described for the HOF.

3.2.2.6 Building 1988 Replacement

No significant effects would be expected. The nature of and overall level of effects would be similar to those of the HOF. The building replacement would have lower construction emissions than those of the HOF, and no changes in operational emissions would result (Table 3-8). No new sources of air emissions would be associated with the building replacement, and air permitting requirements, including the GHG Tailoring Rules, would not apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG threshold in the draft CEQ guidance, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those described for the HOF.

3.2.2.7 Facility Demolition

Short- and long-term minor adverse effects would be expected. The nature of and the overall level of effects would be similar to those described for the HOF. Facility removal would have somewhat lower heavy equipment emissions during demolition than the HOF and would have a net decrease in operational emissions from a reduction in heated space (Table 3-8). No new sources of air emissions would be associated with the facility removals, and air permitting requirements, including the GHG Tailoring Rules, would not apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG threshold in the draft CEQ guidance, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those of the HOF.

3.2.2.8 Gate Modification

Short- and long-term minor adverse effects would be expected. The nature of and overall level of effects would be similar to those of the HOF. The gate modifications would have lower construction emissions than the HOF, and no changes in operational emissions would result (Table 3-8). No new sources of air emissions would be associated with the gate modifications, and air permitting requirements, including the GHG Tailoring Rules, would not apply. The emissions would not exceed the *de minimis* thresholds (thus the general conformity rule would not apply), not exceed the GHG threshold in the draft CEQ guidance, and the activities would not contribute to a violation of any federal, state, or local air regulation. All applicable regulations and BMPs would be similar to those described for the HOF.

3.2.2.9 No Action Alternative

No adverse effects on air quality would result from selecting the No Action Alternative. No construction or demolition actions would occur, and ambient air quality would remain unchanged, compared to existing conditions.

3.3 SAFETY AND OCCUPATIONAL HEALTH

3.3.1 Affected Environment

Development on JBA is restricted in some areas because of safety-related constraints, including the presence of aboveground storage tanks (ASTs) or USTs, sites in JBA's Environmental Restoration Program (ERP), areas in Explosive Safety-Quantity Distance (ESQD) arcs, JBA's Combat Arms Training facility in the southeast portion of the Base, and operational constraints

associated with the airfield. Mapping these constraints, JBA has classified areas of the Base as limited for development, unrestricted for development, and restricted for development. The project construction sites under consideration in this IDEA are all in unrestricted development areas. Construction job site safety and preventing accidents is an ongoing activity for any USAF job site.

3.3.2 Environmental Consequences

3.3.2.1 Proposed Actions

No effects on the safety and occupational health of personnel at JBA or the public would be expected from implementing the proposed action. Construction activities under the proposed action, however, could result in adverse impacts on construction worker safety. Construction contractors would be required to establish and maintain safety programs. All contractors performing construction activities are responsible for complying with USAF safety and Occupational Safety and Health Administration regulations and are required to conduct construction activities in a manner that does not pose any undue risk to workers or personnel. Contractor responsibilities include reviewing potentially hazardous workplaces, monitoring exposure to any safety issues, and ensuring that a plan is in place to respond to any foreseeable issues. Activities associated with the construction projects proposed in this IDEA are not unique and are not anticipated to pose an unacceptable or unnecessary safety risk to JBA personnel or the public.

3.3.2.2 No Action Alternative

Long-term minor adverse effects on Safety and Occupational Health would be expected if the No Action Alternative was implemented. Details are provided below for each of the projects considered in the IDEA.

Helicopter Operations Facility Construction. Helicopter operations are conducted out of a 60-year-old hangar that is not equipped to accommodate personnel. The situation creates a severe space deficit that will worsen with the arrival of new personnel and aircraft. With temporary trailers occupying space on the hangar floor, sufficient space for aircraft and maintenance is not available, and the space is inadequate to perform the mission. The space deficit causes inefficiencies in carrying out mission requirements, dispersion of mission personnel, and extended response times. Such conditions commonly lead to an increased risk of accidents.

West Fitness Center Replacement. The existing West Fitness Center is substandard, inefficient, and often overcrowded. Regular renovations and repairs must be made for the fitness center to continue operations, and continuing under these circumstances would continually expose Base personnel to an unsafe environment.

Child Development Center Replacement. The existing CDC #1 is old, deteriorating, has mold in some areas, and has a poor HVAC system. These conditions create an unsafe environment for children and staff. CDC #1 also cannot accommodate the influx of children of personnel relocating to JBA because of BRAC and National Capital Region restructuring, causing some parents—for financial reasons—to leave their children with unlicensed baby sitters. This could result in an unsafe environment for those children.

Security Forces Group Complex Construction. The Security Forces Group operates out of an antiquated, 1960-era facilities, conducts operations from two facilities on opposite sides of the Base, and travels through traffic-congested areas to obtain alert vehicles before it can respond to security emergencies. This condition adversely affects the overall level of security and safety on JBA and the level of security and safety provided to the President of the United States, U.S. Senior Leaders, and visiting foreign heads of state.

Building 1845 Parking Lot Addition. Joint basing resulted in an increase in Security Forces personnel, but the new complex planned for the Security Forces Group is still several years from being constructed. Under existing conditions, Security Forces personnel—including administrative personnel and guards—are forced to park in various places on the Base because of the lack of parking at Building 1845 and walk to their destination. With Security Forces personnel occupying nearby parking lots, such as at the AAFES exchange parking lot, some customers are then forced to use adjacent parking areas. Personnel and customers can be forced to cross streets to arrive at their destinations, which results in an increased risk of accidents.

Building 1988 Replacement. One purpose of replacing Building 1988 is to correct deficiencies that put security personnel at risk. The security of personnel working at the gate would remain at risk if those deficiencies are not corrected.

Facility Demolition. Old and deteriorating structures such as those proposed to be removed from the real property inventory pose a safety hazard because they generally do not meet building code standards and, through lack of use and maintenance, they deteriorate over time and become safety hazards. Contamination and hazardous materials (e.g., ACM and LBP) in older structures pose a continuous health risk.

Gate Modification. The purpose of the gate modifications is to correct facility deficiencies related to safety and security. The gate configurations do not provide sufficient safety and security to JBA and its personnel, and such insufficiency would continue or increase if the projects are not undertaken.

3.4 EARTH RESOURCES

3.4.1 Affected Environment

JBA is on silty to sandy and gravelly deposits of the upper Coastal Plain. Much of the original land area of the Base has been disturbed by cut and fill or other construction activities since the Base was constructed in 1942. Some areas, especially in and around the runways and taxiways, have been highly disturbed, and some disturbed areas have 20 feet or more of fill material. About 45–50 percent of the Base consists of Udorthents, or land so disturbed that the original soil series cannot be determined. Approximately 10 percent of the Base remains undisturbed, mainly around the perimeter and in parts of the golf course, where the two remaining dominant soil associations are the Sassafras-Croom and the Beltsville-Leonardtown-Chillum associations (USACE Baltimore District 2007). The Sassafras-Croom association is along major drainage ways to Tinkers Creek and Piscataway Creek. The Beltsville-Leonardtown-Chillum association covers the north end of the Base north of the airfield and most of the airfield, and it extends to the southern Base boundary and along its eastern boundary.

3.4.2 Environmental Consequences

3.4.2.1 Proposed Actions

Short-term minor adverse effects on soils would be expected during construction and demolition projects because of temporary disturbance of the ground surface, which could cause soil erosion. These disturbances would not substantially alter existing soil conditions because much of the property at the proposed project sites has been previously disturbed by prior development and infrastructure, limiting the presence of naturally occurring surface soils. Soils at the proposed project sites have no special qualities. Staging areas for the equipment and construction materials would be areas with gravel or lawn, or paved areas; therefore, any effects on soils in those areas would be limited.

Contractors would be required to comply with JBA's environmental standards. This would include submitting an Erosion and Sediment Control Plan to MDE for projects that would disturb more than 5,000 square feet and obtaining coverage under the National Pollutant Discharge Elimination System General Construction Permit, as applicable to each project. Implementing erosion and sediment control BMPs during construction, as specified in these plans, would minimize the effects on soils.

Accidental release of contaminants such as hydraulic and lubricating oils or cooling fluids could occur during construction, along with accidental releases of pollutants into soils during routine maintenance activities. Any accidental release of contaminants or liquid fuels would be addressed in accordance with the Spill Prevention, Control, and Countermeasure Plan (SPCCP). The likelihood of an accidental release would be low because of the implementation of spill prevention and containment measures, as described for the SPCCP.

3.4.2.2 No Action Alternative

No effects on soils at individual project areas would be expected under the No Action Alternative. No ground or soil disturbance would occur at the site of any proposed project that was not undertaken, and existing conditions at the site would persist.

3.5 WATER RESOURCES

3.5.1 Affected Environment

3.5.1.1 Groundwater

JBA is in a section of the Inner Coastal Plain where several minor and regional aquifers exist. Groundwater is generally encountered at depths of less than 20 feet below ground level and is mainly recharged by precipitation. The general direction of groundwater movement is downgradient toward local streams or underlying aquifers (USACE Baltimore District 2007).

3.5.1.2 Surface Water

JBA is in the watersheds of the Potomac River and the Patuxent River. Tributaries of the Potomac River on JBA are Meetinghouse Branch and Paynes Branch, which originate in the southwestern quadrant of the Base; Piscataway Creek, which originates in the southeast corner of the Base; Tinkers Creek, which originates near the southwest corner of the Base and flows to Piscataway

Creek; and Henson Creek, in the northwest corner of the Base. Tributaries of the Patuxent River are Cabin Creek and Charles Branch, which originate in the northeastern portion of the Base.

Piscataway Creek is identified by Maryland as an impaired water under Section 303(d) of the federal Clean Water Act. The creek is identified as being impaired by bacteria and biological causes in its non-tidal portions.

Other surface water resources at the Base are Base Lake (Freedom Lake) in the southwest corner, three ponds in the northwest portion, and two other small impoundments at the south golf course (USACE Baltimore District 2007).

3.5.1.3 Floodplains

Floodplains at JBA are generally limited to small streams and the areas immediately adjacent to streams (Department of the Air Force 2012).

3.5.1.4 Coastal Zone

JBA is within the designated Maryland coastal zone. When a federal agency conducts an activity or development project, or has an activity performed by a contractor for the benefit of the federal agency, the agency must determine whether its activities are reasonably likely to affect any coastal use or resource and to conduct the activities in a manner that is consistent to the maximum extent practicable with the enforceable policies of the applicable state coastal program. The federal agency must provide a consistency determination and supporting materials to the state Coastal Zone Management Program agency at least 90 days before starting the proposed activity (unless a different arrangement has previously been made between the federal agency and the authorized state agency) (Ghigiarelli 2004).

An assessment of the consistency of the proposed activities with the enforceable policies of the Maryland Coastal Program is in Appendix D.

3.5.1.5 Stormwater Runoff

Stormwater runoff at JBA is conveyed through oil/water separators and storm drains in industrial areas, and through swales and ditches in other areas of JBA. JBA has eight subwatersheds, each of which discharges to a major storm drain outfall at the Base boundary. Most stormwater (approximately 90 percent) drains to tributaries that flow to the Potomac River, and the rest drains to the Patuxent River.

3.5.1.6 Regulation

JBA is required to manage its stormwater discharges in accordance with the regulations and requirements contained in the COMAR Chapter 26 subsections. Generally, JBA is required to control pre- and post-construction stormwater runoff, including erosion, sedimentation, and nonpoint source pollution. Specific requirements for JBA are described in the MDE document *Maryland Stormwater Management Guidelines for State and Federal Projects* (MDE 2010), and the MDE *Stormwater Management Act of 2007* (MDE 2007). The regulations require that environmental site design be implemented to the maximum extent practicable through the use of nonstructural BMPs and other site design techniques.

Comprehensive environmental site design methods would be integrated into storm water control designs. Emphasis would be on the use of non-structural BMPs when designing storm water management controls, and structural BMPs would only be used after all practical non-structural options are exhausted. Watershed impacts resulting from construction and storm water controls would be assessed. Stormwater design for facilities would be in compliance with JBA plans, guidance, and analyses, including the Storm Water Pollution Prevention Plan (SWPPP), the Storm Water Institutional Management Plan, Spill Prevention, Control and Countermeasures Plan, and applicable wetlands delineations and floodplain analyses.

Sustainable Design and Development and energy conservation principles would be integrated into facility design and construction would be in accordance with EO 13423 and EO 13514, the Energy Policy Act of 2005, the Energy Independence and Security Act 2007, Army Sustainable Design and Development Policy, the Installation Design Guide, and other applicable codes, laws and EOs. Section 438 of the Energy Independence and Security Act of 2007 establishes strict stormwater runoff requirements for federal development and redevelopment projects:

> *Storm water runoff requirements for federal development projects*. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

The facilities would be certified by the U.S. Green Building Council under the Leadership in Energy and Environmental Design rating system with a minimum Silver rating.

The Rivers and Harbors Act of 1899 (33 U.S.C. 401), establishes a program to regulate activities affecting navigable waters of the United States. Section 10 of the Act (33 U.S.C. 403) directs that proponents must obtain a Section 10 permit administered by the U.S. Army Corps of Engineers (USACE) for construction, excavation, or deposition of materials in, over, or under navigable waters, or for any work that would affect the course, location, condition, or capacity of those waters. Activities requiring Section 10 permits include structures (e.g., piers, wharves, breakwaters, bulkheads, jetties, weirs, transmission lines) and work such as dredging or disposal of dredged material, or excavation, filling, or other modifications to the navigable waters of the United States.

Section 401 of the Clean Water Act (CWA) (33 U.S.C. 1344) directs that any proponent of an action that requires a federal license or permit (such as a Section 404 permit) must obtain a Water Quality Certificate from the state water pollution control agency, certifying that the action complies with state water quality criteria.

3.5.2 Environmental Consequences

3.5.2.1 Proposed Actions

No significant effects on stormwater, surface waters, and groundwater would be expected from implementing any of the proposed projects. No effects on floodplains would be expected from implementing the proposed projects; none of the proposed projects are in or near a floodplain.

Construction activities, including grading, clearing, and excavation would result in ground surface disturbance and could cause soil erosion and subsequent transport of sediment into

streams via stormwater. These effects would be short-term minor adverse, and would be minimized through the use of erosion and sediment control BMPs. As discussed above, JBA or its contractors would prepare a sediment and erosion control plan for construction projects as necessary and would have it approved by MDE before construction, and JBA would comply with stormwater- and construction-related permits. Post-construction stormwater runoff would be controlled and managed in accordance with an MDE-approved stormwater management plan. All projects would comply with the current version of the *Maryland Stormwater Management Guidelines for State and Federal Projects* and with the requirements of the *Energy Independence Security Act* Section 438.

Implementing erosion and sediment control BMPs during construction would minimize adverse effects on surface waters, and no effects on the water quality of Piscataway Creek, a Maryland-listed impaired stream, would be expected. Erosion and sediment control BMPs could include silt fencing, sediment traps, applying water sprays for dust control, and revegetating disturbed areas.

Accidental release of contaminants, such as hydraulic and lubricating oils or cooling fluids could also occur during construction, routine maintenance activities, or an accidental release of pollutants from vehicles or equipment to a permeable surface, and any release could affect groundwater. Any accidental release of contaminants or liquid fuels would be addressed in accordance with the SPCCP. The effects of an accidental release could be substantial and adverse, although the likelihood of an accidental release would be low because of spill prevention and containment measures described for the construction plans.

A Section 10 permit pursuant to the Rivers and Harbors Act of 1899 would not be required for this action because no construction, excavation, or deposition of materials in, over, or under navigable waters, or work that would affect the course, location, condition, or capacity of those waters, would occur in connection with implementing the projects in the EA. JBA would obtain a Water Quality Certificate from the Maryland Department of the Environment pursuant to CWA Section 401 before implementing the actions described in the EA.

No effects on Maryland's coastal resources would be expected from implementing the projects in the EA. A coastal program consistency determination is in Appendix D. All activities would be conducted in accordance with applicable laws, regulations, and policies governing erosion and sediment control and stormwater management, which would ensure that all the projects would occur in a manner consistent with the applicable Maryland Coastal Program enforceable policies.

3.5.2.2 No Action Alternative

No adverse effects on water resources would be expected under the No Action Alternative. No ground disturbance or change in impermeable area would occur at the site of any project not undertaken, resulting in no effect on water resources under the No Action Alternative.

3.6 INFRASTRUCTURE/UTILITIES

3.6.1 Affected Environment

3.6.1.1 Potable Water Distribution System

The water system infrastructure at JBA was privatized in February 2006. Terrapin Utility Services, Inc., owns and operates it under a 50-year contract. Terrapin purchases water from the

Washington Suburban Sanitary Commission (WSSC) to serve the Base. The water supply and treatment provided by WSSC are adequate for all current and industrial uses; however, the distribution system for the water supply is not adequate. Brown water is detected in areas of the Base that are supplied by the aging distribution system, particularly on the east side and lower west side of the Base. Terrapin is replacing water distribution pipes throughout the Base.

3.6.1.2 Sanitary Sewer System

The sanitary sewer system at JBA was privatized in February 2006. Terrapin Utility Services, Inc., owns and operates it. The majority of the sewer collection system is about 60 years old, and the system contains more than 33 miles of sewer line with more than 1,000 manholes. Infiltration is a problem in the system. Many pipes, lift stations, and sewer manholes are in poor condition. Terrapin has begun to rehabilitate or replace the entire wastewater collection system.

3.6.1.3 Stormwater Drainage System

Oil/water separators are used on Base, though non-required ones are being eliminated. They are flushed annually, and other required maintenance is done as needed.

The JBA stormwater system consists of catch basins and culverts that guide water through a series of natural drainage channels, underground storm sewer pipes, and man-made ditches. The storm drainage system has been rated as degraded. The flat terrain and shallow storm sewer lines create an inefficient storm drainage system and can cause isolated ponding during low-intensity rainfalls. A number of renovations to the system have been proposed to meet regulatory requirements, including rehabilitating many BMPs.

3.6.1.4 Electrical System

Potomac Electric Power Company (PEPCO) provides electrical power to JBA. Electrical feeders from off Base tie directly into a main substation (which the USAF owns and operates). Primary feeder circuits distribute electricity to the rest of the Base from the substation. Most (more than 90 percent) overhead power lines have been placed underground. The Base owns, operates, and maintains the on-Base electric power distribution system, except in the housing area where it is privatized. The electrical supply from PEPCO is adequate for the on-Base existing demands.

3.6.1.5 Heating and Cooling Systems

The JBA heating and cooling system has been decentralized, and no longer includes central heating plants. More than 300 oil-fired and natural gas boilers are still operational, about 95 percent of which run on natural gas and the rest on oil. Approximately 60 percent of the buildings on Base are on an automated heating and cooling system. Overall, the heating and cooling system is in fair condition. Eighty percent of the system is new and in good condition; the remaining 20 percent is in mediocre to poor condition.

3.6.1.6 Natural Gas System

Washington Gas Light Company (WGL) supplies natural gas to JBA through seven connection points. The system, which was installed in 1985, is a looped distribution system approximately 10 miles long. WGL owns and operates 100 percent of the natural gas system and is responsible for maintaining and installing all natural gas lines from the connection point to the pressure

regulators at each building. The USAF is responsible for maintaining and repairing all lines in each building. The natural gas system is adequate, and the privatization of the distribution system's maintenance and operation to WGL has improved the efficiency for completing on-site repairs and reduced the likelihood of system failures.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Actions

A long-term minor adverse effect on each utility system would be expected from implementing the proposed projects because of an overall increased demand on each system. The net addition to the Base would be approximately 244,000 SF of built space. Each of the utility systems, however, is adequate to handle the increased load. All new facilities would be constructed to meet LEED Silver standards of the U.S. Green Building Council, which would ensure that the new facilities would be water and energy efficient.

3.6.2.2 No Action Alternative

No effects on utility systems would result from implementing the No Action Alternative. Utility system demand and usage would remain unchanged from existing conditions.

3.7 TRANSPORTATION

3.7.1 Affected Environment

Regional access to JBA is provided by I-95 and I-495 (Capital Beltway) and serves as the major artery to and from JBA to Washington, D.C. to the northwest and Baltimore, Philadelphia, Pennsylvania, and Wilmington, Delaware, to the northeast.

3.7.1.1 On-Base Roadways and Gate Traffic

JBA has approximately 101 miles of paved roads that provide access to administrative, operations, housing, industrial, medical, recreation, and airfield areas. The overall pavement condition for roads and parking lots on JBA is adequate, and the majority of the paved surfaces are in good condition. Perimeter Road is the only primary roadway connecting the two sides of JBA. The two-lane, undivided road makes an 8.4-mile loop around the Base. Traffic during peak flow hours is heaviest at the Alabama Avenue/North Perimeter Road and Virginia Avenue/South Perimeter Road intersections because of the limited number of egress points on the Base. Despite heavy traffic flow at the gates and signalized intersections, JBA has a very low accident rate because of adequate sight distance and road signage (URS 2012). Table 3-9 lists the on-Base roadways providing direct access to the proposed construction and demolition sites.

3.7.1.2 Off-Base Roadways

The Capital Beltway, I-95/I-495, is adjacent to JBA, along the northwest side of the Base and parallels Maryland Route (MD) 337/223 (Allentown Road/Suitland Parkway) on the northwest portion of the Base. Major thoroughfares providing access to JBA are MD-4 (Pennsylvania Avenue) and MD-5 (Branch Avenue).

Table 3-9.
On-Base roadways and gates closest to proposed construction/demolition

Proposed construction/demolition site	Roadways providing access to the proposed site	Gate nearest to the proposed site
Helicopter Operations Facility	G Street, Arnold Avenue	Main
Fitness Center	Arkansas Avenue, Concord Avenue	Main
Child Development Center	Utica Street, Vermont Road	Virginia
Security Forces Group complex	Brookley Avenue, D Street	Main
Building 1845	North Perimeter Road	Main
Building 1988	Maryland Drive, North Perimeter Road	North
Building 1429	Arnold Avenue, Menohe Drive	Main
Building 1679	Brookley Avenue, D Street	Main
Building 1685	Brookley Avenue, F Street	Main
Building 1732	D Street, Arnold Avenue	Main

In general, major intersections in the roadway network surrounding JBA are operating over capacity, accommodating more traffic than they were designed to handle. This creates queuing, delays, and potentially unsafe conditions. The average annual daily traffic (AADT) is the average number of vehicles traveling along a roadway each day. Level of service (LOS) is a measure of the operational conditions on a roadway or at an intersection. LOS range from A to F, with *A* representing the best operating conditions (free flow, little delay) and *F* the worst (congestion, long delays). LOS A, B, or C is typically considered good operating conditions. Table 3-10 lists the routes near the proposed sites and in the area, their AADT, and their estimated existing LOS. Note that some the nearby roadways are already congested during peak traffic periods (i.e., LOS D, E, or F).

Table 3-10.
Existing AADT and LOS on nearby roadways

Roadway	AADT (vpd)	Estimated existing LOS	
		AM	PM
MD- 337	31,643	D	F
MD-223	15,404	B	C
MD-4	74,951	F	F
MD-5	118,851	D	F
Capital Beltway I-495/95	186,122	D	E

Source: MDOT 2012, 2009; ITE 2003; MDOT 2009.
Note: vpd = vehicles per day

Additionally, the following intersections providing access to these gates operate above their capacity during at least one peak traffic period (JBA 2011):

- Allentown Road and I-95 Northbound Off-ramp (Main Gate)
- Pearl Harbor Drive and Dower House Road (Pearl Harbor Gate)
- Old Alexandria Ferry Road and Coventry Way (near Virginia Gate)

3.7.1.3 Air, Rail, and Public Transportation

The closest international airport is Ronald Reagan Washington National Airport, which is 15 miles away and has 785 operations per day (AirNav 2012). Other nearby airports are Baltimore-Washington International, and Washington Dulles International Airport. The closest Amtrak station is Union Station Washington, D.C. (Amtrak 2012). Three public agencies provide transit service to the area surrounding JBA: Washington Metropolitan Area Transit Authority, the Maryland Transit Administration, and *TheBus* of Prince George's County. Commuters must walk to and from any public transit stops and through the entry control facilities to their Base destination or JBA shuttle stop. Two bus routes have at least two stops within a quarter-mile of the intersection of Suitland Road and Allentown Road outside the Main Gate (JBA 2011).

3.7.2 Environmental Consequences

3.7.2.1 Helicopter Operations Facility Construction

Short- and long-term minor adverse effects on transportation would be expected from construction and operation of the HOF. Short-term effects would be from additional vehicles and day-labor traffic during construction. Long-term effects would be because of small changes in traffic from the proposed actions. The proposed actions would have no appreciable effect on air, rail, or public transportation.

Construction. Construction activities would be expected to have short-term minor adverse effects on transportation and traffic. These effects would be primarily from worker commutes and delivery of equipment and materials to and from the proposed HOF. Congestion could increase in the immediate area from additional vehicles and traffic delays near the site. In addition, road closures or detours to accommodate utility system work could be expected. These effects would be temporary and would end with the construction phase. The existing transportation infrastructure would be sufficient to support the increase in vehicle traffic. Although the effects would be minor, contractors would route and schedule construction vehicles to minimize conflicts with other traffic, and strategically locate staging areas to minimize traffic impacts. All construction vehicles would be equipped with backing alarms, two-way radios, and Slow Moving Vehicle signs, when appropriate.

Operation. Operation of the proposed HOF would introduce additional vehicles onto nearby roadways. Direct effects would include an increase in daily and peak-period traffic volumes on roadways and at intersections adjacent to the proposed HOF, and particularly G Street and Arnold Avenue. During its operation, the proposed HOF would generate 948 vehicle trips per day and 128 vehicle trips during peak travel periods. Some queuing could result at intersections near the proposed HOF during peak traffic periods because of commuting workers. This would constitute a minor change in both on- and off-Base traffic, but it would not appreciably affect any nearby roadways or intersections. These effects would be somewhat offset by reductions in traffic at the 60-year old hanger being used for these activities. Overall, these effects would be minor.

3.7.2.2 West Fitness Center Replacement

Short- and long-term minor adverse effects on transportation would be expected from construction and operation of the Fitness Center. The nature of and the overall level of construction and demolition effects would be similar to those described for the proposed HOF, however, effects would be near the existing and proposed fitness center sites. During its

operation, the proposed fitness center would generate 1,448 vehicle trips per day and 195 vehicle trips during peak travel periods. The relocation of the facility would not substantially change existing traffic patterns by visitors and staff as the existing Fitness Center (Building 1444) is approximately 200 feet west of the proposed site. Individuals accessing the center would continue to use the Main Gate. Some queuing could occur at intersections near the proposed Fitness Center during peak traffic periods because of patrons and commuting workers. These effects would be somewhat offset by reductions in traffic at the existing fitness center. These effects would be minor.

3.7.2.3 Child Development Center Replacement

Short- and long-term minor adverse effects on transportation would be expected from construction and operation of the CDC. The nature of and the overall level of construction effects would be similar to those described for the proposed HOF, however, effects would be near the existing and proposed CDC site. During its operation, the proposed CDC would generate 655 vehicle trips per day and 88 vehicle trips during peak travel periods. The relocation of the facility would not substantially change existing traffic patterns by visitors and staff as the existing Family Childcare Resource Center (Building4575) is approximately 600 feet east of the proposed site. Individuals accessing the center from off-Base would continue to use the Virginia Gate. Some queuing turning left onto Vermont road near the Virginia gate could occur unless an alternate access is provided (see 1.1.2.6 Gate Modifications – Virginia Gate) during peak traffic periods because of commuting workers using the CDC and continuing on to other on-Base locations. These effects would be somewhat offset by reductions in traffic at the existing CDC. These effects would be minor.

3.7.2.4 Security Forces Group Complex Construction

Short- and long-term minor adverse effects on transportation would be expected from construction and operation of the Security Forces Group complex. The nature of and the overall level of construction effects would be similar to those described for the proposed HOF, however, effects would be near the proposed Security Forces Group Complex site. During its operation, the proposed Security Forces Group Complex would generate 1,312 vehicle trips per day and 177 vehicle trips during peak travel periods. Individuals accessing the center from off-Base would primarily use the Main Gate. These effects would be minor.

3.7.2.5 Building 1845 Parking Lot Addition

Short-term minor adverse and long term minor beneficial effects would be expected from expansion of the parking lot at Building 1845. The nature of and the overall level of construction effects would be similar to those described for the HOF. Table 3-9 lists the roadways and gates that provide access to Building 1845. No long-term changes in vehicle traffic would result from the parking addition; however, the additional parking would have minor beneficial effects.

3.7.2.6 Building 1988 Replacement

Short-term minor adverse effects on transportation would be expected from replacing Building 1988. The nature of construction effects would be similar to those described for the proposed HOF, though and the level of effects would be expected to be less than those described for the proposed HOF because of the smaller size of the facility to be constructed and presumably shorter time frame over which demolition and construction would occur. All effects would be near

Building 1988, primarily along North Perimeter Road. No detours would be expected because Maryland Drive would continue to serve as the Distinguished Visitor entrance during construction.

3.7.2.7 Facility Demolition

Short-term minor adverse effects on transportation would be expected from facility removals. The nature of and the overall level of effects would be similar to those described for the HOF as it pertains to demolition. Table 3-9 lists the roadways and gates that provide access to each building slated for demolition. No long-term changes in vehicle traffic would result from facility removal. Any existing operations at the building slated for demolition would end with their demolition. These effects would be minor.

3.7.2.8 Gate Modification

Short-term minor adverse and long-term minor beneficial effects on transportation would be expected from the gate modifications. The nature of and the overall level of construction effects would be similar to those described for the proposed HOF, however, effects would be near the proposed gate modification sites. Effects from detours during gate modifications would be temporary and scheduled with notification before construction.

No long-term changes in traffic volumes would result from the gate modifications. Long-term beneficial effects would include traffic-calming features allowing for improved traffic flow at the gates and increased safety, improving transition from four lanes to two at the Perimeter Road intersection at the Main Gate, and incorporating access to the new CDC at Virginia Gate. These effects would be minor.

3.7.2.9 No Action Alternative

No effects on transportation resources would result from selecting the No Action Alternative. No construction or demolition would occur, and no long-term changes in transportation would take place. Traffic and transportation conditions would remain unchanged, compared to existing conditions.

3.8 HAZARDOUS MATERIALS AND WASTES

3.8.1 Affected Environment

The existing conditions of the sites being proposed for new construction or demolition are described below.

3.8.1.1 Helicopter Operations Facility Construction

The proposed HOF parcel is undeveloped except for an access road that serves a parking area north of the parcel. No ERP sites are on the parcel. The closest ERP site—PD-680 Spill Site (ST-10)—is approximately 600 feet southeast of the parcel. ST-10 has land-use controls (LUCs), active groundwater treatment measures, and has reached *Remediation in Place* status (JBA undated a).

3.8.1.2 West Fitness Center Replacement

No ERP sites are on or close to the proposed location for the new fitness center. The West Fitness Center (Building 1444) was constructed before 1979 and is, therefore, assumed to have been constructed using ACM and LBP (USGS 1965). Demolition of Building 1444 would be conducted in compliance with applicable federal, state, and local environmental laws and JBA environmental standards, as stated above.

3.8.1.3 Child Development Center Replacement

The proposed CDC parcel is undeveloped. No ERP sites are on the parcel. A portion of a former military housing area where USTs were used to store heating oil is adjacent to the southern parcel boundary (JBA undated b). Oil-burning furnaces were converted to gas in the early 1990s and USTs were removed. Leaking USTs were investigated by collecting soil and groundwater samples. The investigation, referred to as Military Family Housing Area ST-19, included multiple housing areas on JBA. All of the approximately 520 sites from which USTs were removed in the former Military Housing Area have been remediated and closed per regulatory requirements.

The existing, 66-year-old CDC (Building 4575) would also be demolished as part of the proposed action. Because of the age of the building it is presumed that ACM and LBP are present. Historical asbestos sampling in Building 4575 identified asbestos in fire doors, floor tile, and piping; however, it is not known whether the ACM has been removed. Two abandoned-in-place USTs at the CDC would be removed during the demolition.

3.8.1.4 Security Forces Group Complex Construction

The parcel for the proposed Security Forces Group Complex is partially developed and occupied by the Base Library (Building 1642) and a POV wash rack (Building 1605). No ERP sites are on the parcel, but an ERP site is north of the parcel—the AAFES Service Station Site (ST-17) (JBA undated c). The service station is approximately 1,100 feet north of the northern parcel boundary, but the contaminant plume associated with the ERP site is approximately 300 feet northwest of the parcel boundary. Remediation efforts have addressed the contaminant plume, and the site received *Remedy in Place* status in 2005.

Buildings 1642 and 1605 were constructed after 1980 and are presumed to not contain ACM and LBP (USGS 1965).

3.8.1.5 Building 1845 Parking Lot Addition

The area selected for additional parking to support Building 1845 is undeveloped. No ERP sites are on or close to the parcel. Soil contamination from a former heating oil tank on the site might be present on the parcel.

3.8.1.6 Building 1988 Replacement

No ERP sites are close to Building 1988 and no UST or AST concerns are in the project area (JBA 2011a, 2011b, 2011c). On the basis of the proposed action and the age of Building 1988 (constructed in 2004), it is unlikely that ACM or LBP is of concern with respect to the proposed demolition and construction.

3.8.1.7 Facility Demolition

Facility removal includes demolishing Building 1429 (generator building), Building 1679 (chapel), Building 1732 (West Heat Plant), and Building 1988 (traffic check house), and removing a canopy and four USTs at Building 1685 (former AAFES gas station). With the exception of chapel and the former AAFES gas station, no ERP sites of concern exist with respect to these facilities. The contaminant plume associated with the former AAFES gas station (ERP Site ST-17)—the source of which was close to the USTs and canopy that are proposed for removal—was once close to the chapel. Remediation efforts have addressed the contaminant plume, and the site has been in *Remedy in Place* status since 2005.

Each of the facilities is presumed to contain ACM and LBP. Building 1429 has an UST, and Building 1732 has an AST; both will be removed during facility demolition.

3.8.1.8 Gate Modification

Gate modifications are proposed at three JBA gates–the Main Gate, Virginia Avenue Gate, and the Pearl Harbor Gate. No ERP sites are close to these gates and no UST or AST concerns are in the project areas (JBA 2011a, 2011b, 2011c). On the basis of the proposed action and the age of the gate infrastructures, it is unlikely that ACM or LBP is of concern with respect to the proposed upgrades.

3.8.2 Environmental Consequences

3.8.2.1 Proposed Action

Short-term minor adverse effects from using hazardous substances such petroleum, oil, and lubricants and generating hazardous wastes would be expected during construction and demolition. Minor releases of hazardous substances would be expected from construction equipment, and demolition would generate some hazardous waste.

All contractors involved with implementing the proposed actions, including facility demolition and construction, would be required to use hazardous materials; manage, store, transport, and dispose of hazardous wastes (including contaminated soil) generated by or as a result of their activities; and take all necessary precautions to prevent spills of hazardous materials (including oils and hazardous wastes) in accordance with all applicable JBA environmental standards and federal, state, and local laws and regulations. This would limit the environmental effects associated with hazardous materials and wastes.

No adverse effects would be expected from ACM or LBP removed during facility removals or contaminated soil that could be encountered where USTs and ASTs are removed or near ERP sites. All ACM and LPB in buildings proposed for demolition and contaminated soil would be handled in accordance with JBA environmental standards.

3.8.2.2 No Action Alternative

No adverse environmental or health effects related to the use, disposal, or storage of hazardous or toxic materials would be expected from implementing the No Action Alternative.

3.9 BIOLOGICAL RESOURCES

3.9.1 Affected Environment

Biological resources are native or naturalized plants and animals and the habitats, such as wetlands, forests, and grasslands, in which they exist.

3.9.1.1 Vegetation

Nearly 80 percent of JBA is developed or intensely managed. The vegetation occurs largely in association with extensively managed or *improved* areas such as lawns, gardens, golf course fairways, housing areas, along major roadways, and recreational fields, and in *semi-improved* areas such as runway borders, the runway infield, and approach clear zones. Most turf and landscape areas occur in the improved and semi-improved portions of JBA. Remaining patches of original vegetation (unimproved areas) consist of shallow, emergent marshland and forestland. JBA is in the Atlantic Slope Section of the Oak-Pine Forest Region. Approximately 720 acres of forested land on JBA are scattered around the perimeter and southern portion of the Base. No forests classified as being of high ecological value have been identified at JBA. The site proposed for the HOF has approximately 1.4 acres of oak forest (USACE Baltimore District 2007). None of the other sites proposed for projects in the IDEA support natural vegetation.

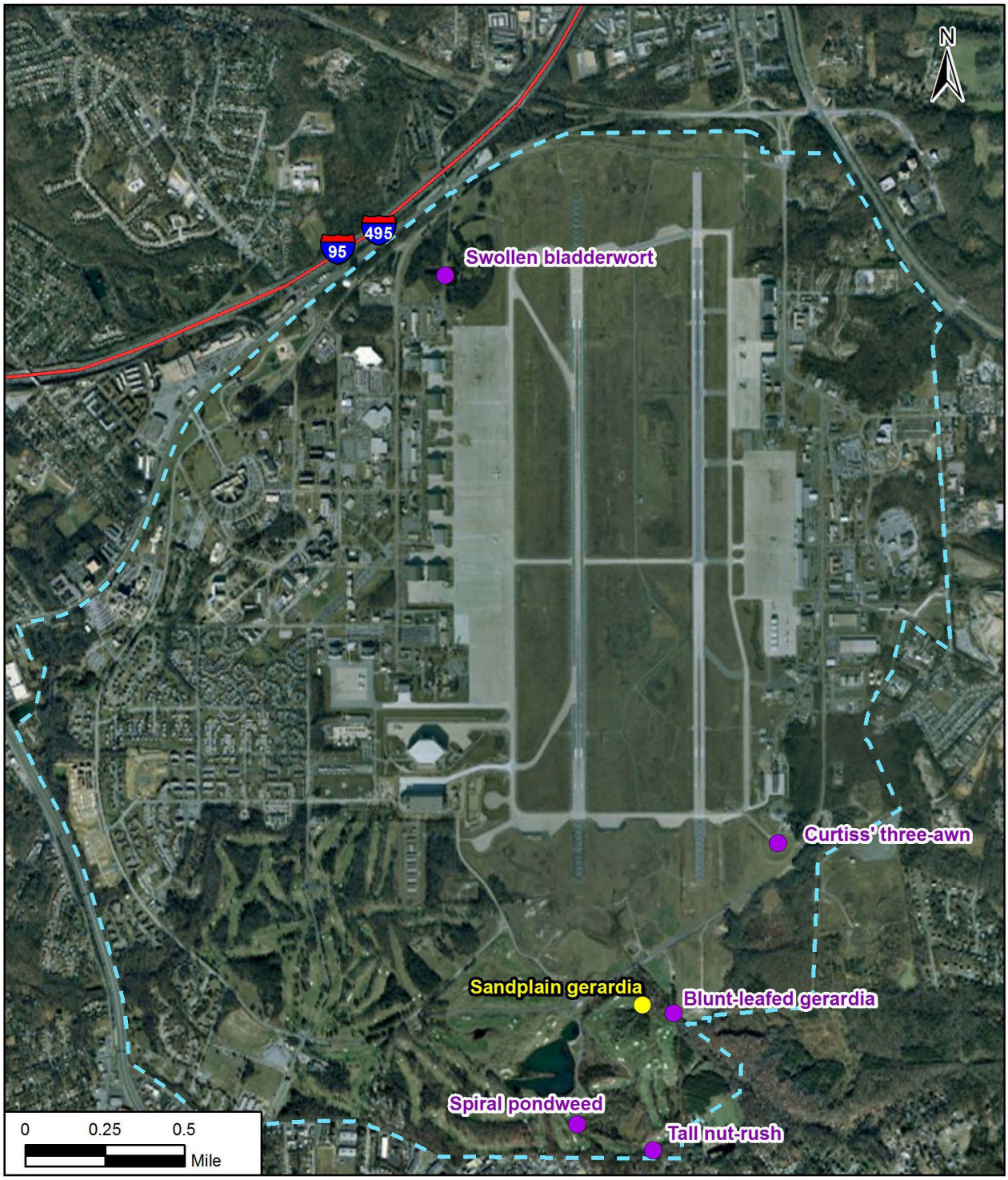
3.9.1.2 Wildlife

The wildlife of JBA is typical of the mid-Atlantic region. Eighty-four bird species have been identified at JBA, including geese, herons, passerines, and birds of prey. Migratory birds, especially waterfowl, are common at JBA because of the ponds and wetlands and the proximity of JBA to the Chesapeake Bay. Reptiles found at JBA include common species of snakes, lizards, and turtles. Mammals known to occur at JBA are also those common in the region, including white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), eastern gray squirrel (*Sciurus carolinensis*), eastern cottontail (*Sylvilagus floridanus*), and several bat species.

3.9.1.3 Threatened and Endangered Species

Surveys for rare, threatened, and endangered species have identified 21 rare, threatened, or endangered plant species as occurring on JBA property (USACE Baltimore District 2007). Of those 21 species, only 6 have been recorded in the main Base. During surveys all six species were observed on JBA in 1993, three of the six were observed in 1996–1997, one was observed in 2004, and none was observed in 2006. Although 21 federally listed plant species could potentially occur on JBA, the habitats of the base—and specifically the habitats of the proposed project sites—do not support any of the listed species. The locations where federal- and state-protected species have been found on JBA are shown in Figure 3-2.

The only federally listed species present at JBA is the sandplain gerardia (*Agalinis acuta*); the only known population of the sandplain gerardia is south of the flightline near the 13th tee of the golf course. The habitat is protected by fencing and signage that warns of the presence of a protected species. Five state-listed species have been observed at JBA, but none of the species was identified in the most recent survey in 2006. None of the sites proposed for construction and demolition projects support protected species. An informal consultation request for information was sent to the US Fish and Wildlife Service (see Appendix A).



LEGEND

- JBA Boundary
- Federally Endangered
- State-Listed Rare, Threatened or Endangered

Location of Rare, Threatened and Endangered Species

Figure 3-2

3.9.1.4 Wetlands

Wetland surveys were conducted at JBA in 1997, 2004, 2010, and 2012. The 2004 survey was a formal jurisdictional delineation and identified 87.2 acres of jurisdictional wetlands. The three main wetland community types identified at JBA are palustrine emergent wetlands, palustrine scrub-shrub wetlands, and palustrine forested wetlands. Emergent and scrub-shrub wetlands are in areas on the golf course near Freedom Lake and at the southern end of the airfield, and small areas of emergent wetlands occur on the airfield. Forested wetlands are throughout the Base. No wetlands are on any of the sites proposed in the IDEA for construction or demolition projects.

Section 404 of the CWA (33 U.S.C. 1344) establishes a program to regulate all dredging and filling activities related to jurisdictional waters and wetlands of the United States. Actions that may impact wetlands, to include dredging, filling, and activities that may displace soil into a wetland, may require a 404 permit from the USACE.

In compliance with Executive Order (EO) 11990, *Protection of Wetlands*, May 24, 1977, the AF seeks to preserve the natural values of wetlands while carrying out its mission on both AF lands and non-AF lands. To the maximum extent practicable, the AF avoids actions that would either destroy or adversely modify wetlands.

3.9.2 Environmental Consequences

3.9.2.1 Proposed Actions

No effects on protected species or wetlands would be expected from implementing the proposed action. None of the proposed construction or demolition projects would impact a protected species or occur in a wetland. Long-term minor adverse effects on vegetation—and any animals inhabitat it—would result from removing a small patch of woods on the proposed site for the HOF. JBA would, as applicable, comply with regulations concerning the conservation and preservation of trees as described in the Maryland Forest Conservation Act of 1991 and the Prince George's County Woodland Conservation and Tree Preservation Ordinance. JBA would consider the presence of nesting birds before commencing any construction. The proposed construction projects would be reviewed to determine the need for tree replacement, and any necessary tree replacement would be completed in accordance with the requirements in the JBA Integrated Natural Resources Management Plan (USACE Baltimore District 2007). A CWA Section 404 permit would not be required for the actions described in the EA because no dredging, filling, or activities that would displace soil into a wetland would occur in conjunction with the actions proposed in the EA. The actions as described in the EA would be in compliance with EO 11990 because no wetlands would be impacted by the projects proposed in the EA.

3.9.2.2 No Action Alternative

No effects on protected species or wetlands would be expected from implementing the No Action Alternative.

3.10 CULTURAL, HISTORICAL, AND ARCHEOLOGICAL RESOURCES

3.10.1 Affected Environment

For both aboveground and archaeological resources, the area of potential effects on cultural resources for the purposes of the proposed projects in this IDEA consists of the boundaries of the disturbed area for each project.

One aboveground historic property, Belle Chance (PG:77-14, determined to be eligible for the National Register of Historic Places), has been identified in the boundaries of JBA. The Belle Chance property includes a 1912 dwelling, two auxiliary buildings, a cemetery and one historic archaeological site (18PR447). The structures of the property were transferred to a housing privatization contractor in 2007, although the land that encompases Belle Chance remains in the larger JBA boundary and under federal ownership. The Belle Chance property is near the northwest boundary of JBA. No historic or archaeological properties are known to be within the footprints of any of the projects proposed in the IDEA.

The Maryland Inventory of Historic Properties does not contain any information about the history or condition of the following buildings: 1672, 1732, 1988, 3229, 1642, or 1605. The inventory also has no information on Buildings 1444, 1413, or 1414, which could be affected by the construction of the new fitness center. Depending on the significance and integrity of the buildings they may be eligible for listing in the National Register of Historic Places.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Actions

No effects on cultural resources would be expected from implementing the proposed projects. No historic or archaeological properties would be disturbed by undertaking any of the projects proposed in the IDEA.

Regarding buildings 1672, 1732, 1988, 3229, 1642, 1605, 1444, 1413, and 1414, identified by the Maryland Historic Trust as buildings on which it does not have any information, JBA will evaluate the buildings for National Register eligibility pursuant to provision 36 CFR part 800.4, provide the Determination of Eligibility forms for each building type to the Maryland Historic Trust, and await a response from the Maryland Historic Trust on the eligibility of the buildings before commencing any construction that would affect the buildings.

3.10.2.2 No Action Alternative

No effects on cultural resources would be expected from implementing the No Action Alternative.

3.11 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE, AND PROTECTION OF CHILDREN

3.11.1 Affected Environment

This section describes the economy and the sociological environment of the region of influence (ROI) surrounding JBA. An ROI is a geographic area selected as a basis on which social and

economic impacts of project alternatives are analyzed. The ROI for the social and economic environment is defined as Prince George's County, Maryland. For comparative purposes, socioeconomic data also are presented for Maryland and the United States.

3.11.1.1 Population

Population trends are presented in Table 3-11. The ROI's population increased by about 69,700 people (or 9 percent) between 2000 and 2011. The ROI population grew at a slower rate than the state and the nation. In that same period, Maryland's population grew by 10 percent and the U.S. population grew by 11 percent. The ROI's projected population growth is expected to continue to lag behind the state and the nation. The ROI's population is estimated to increase by 7 percent between 2011 and 2030, but Maryland's population is projected to increase by 20 percent and the nation by 17 percent.

Table 3-11.
Population

Jurisdiction	2000 population[a]	2011 population[a]	Change in population, 2000–2011	2030 projected population[b c]	Projected change in population, 2011–2030
ROI (Prince George's County)	801,515	871,233	9%	928,300	7%
Maryland	5,296,486	5,828,289	10%	7,022,251	20%
United States	281,421,906	311,591,917	11%	363,584,435	17%

[a] Source for 2000 and 2011 population: U.S. Census Bureau 2012b.
[b] Source for Prince George's County 2030 projected population: MDP 2010.
[c] Source for Maryland and United States 2030 projected populations: U.S. Census Bureau 2005.

JBA is about 5 miles southeast of Washington, D.C., and is bordered to the west by a highly urbanized area and to the east by a semi-rural area that will be subject to suburban residential growth. Communities around JBA include Forestville and Morningside to the north, Camp Springs to the west, Clinton to the south, Rosaryville to the southeast, and Upper Marlboro to the east. Population data for these communities from the 2000 and 2010 decennial censuses show that Camp Springs, Clinton, and Morningside increased in population, while Forestville, Rosaryville, and Upper Marlboro declined (U.S. Census 2000, 2010). A major new town development (Westphalia) to be built over a period of 30 years will be immediately adjacent to the northeast boundary of JBA and is expected to attract significant residential and commercial activity (DoD OEA 2011; MNCPPC 2009).

3.11.1.2 Employment and Income

Employment. Table 3-12 lists labor force, employment, and unemployment data. ROI labor force and unemployment trends are about the same as the state and nation. The ROI labor force increased 8 percent between 2000 and 2011, lower than the Maryland labor force growth of 9 percent but the same as the U.S. labor force growth. The ROI 2011 annual unemployment rate was 7 percent, the same as the Maryland state unemployment rate but lower than the national unemployment rate of 9 percent. Overall, the unemployment rates for the ROI, Maryland, and the nation have been increasing since 2007 (BLS 2012). As of August 2012 (the most recent unemployment data available), preliminary unemployment for this month is a 7 percent unemployment rate for the ROI, the same as the Maryland unemployment rate, but lower than the national unemployment rate of about 8 percent (BLS 2012).

Table 3-12.
Labor force and unemployment

Jurisdiction	2000 civilian labor force	2011 civilian labor force	Change in labor force, 2000–2011	2011 annual unemployment rate
ROI (Prince George's County)	430,406	464,524	8%	7%
Maryland	2,811,657	3,072,246	9%	7%
United States	142,583,000	153,617,000	8%	8%

Source: BLS 2012

As of 2010, the primary ROI industries (on the basis of employment) were government and government enterprises (which includes federal civilian and military, and state and local government); retail trade; health care and social assistance; construction; and professional, scientific, and technical services. Together these five industry sectors accounted for about 60 percent of regional employment. Between 2001 and 2010, the largest employment increases occurred in the government, accommodation and food services, and health care and social assistance sectors. The largest employment declines occurred in the information services, manufacturing, and construction industry sectors. The government and government enterprises industry sector (which includes JBA) was the largest industry in the region, employing about 98,100 people and accounting for 23 percent of total ROI employment (BEA 2012).

JBA is a major contributor to the regional economy. The Base is home to more than 60 units, including 2 major headquarters, 6 wings, and about 17,000 Air Force, Air Force Reserve, Air National Guard, Army, Navy, and Marine Corps service members, civilians, and their families. JBA has an economic impact of more than $1 billion to the local community each year (JBA 2010).

Income. Table 3-13 lists per capita personal income (PCPI) and median household income. The ROI income levels were about the same as the state's, but higher than the nation's. The ROI PCPI was $31,365. This PCPI was 91 percent of the Maryland state PCPI of $34,500, but 117 percent of the national PCPI of $26,708. The ROI median household income of $70,715 was 101 percent of the Maryland median household income of $70,004 and 140 percent of the national median household income of $50,502.

Table 3-13.
Income, 2011

Jurisdiction	PCPI	Median household income
ROI (Prince George's County)	$31,365	$70,715
Maryland	$34,500	$70,004
United States	$26,708	$50,502

Source: U.S. Census Bureau 2012a

3.11.1.3 Recreation and Services

JBA has a number of indoor and outdoor recreational and service facilities. Indoor facilities include the Community Activities Center; a Youth Center; three CDCs; two fitness centers; auto skills center; bowling center; movie theater; library; Commissary; Base Exchange (with barber shop, beauty salon, retail stores, and food court); restaurants; clothing store; furniture store; optometrist; pharmacy; and credit union. Outdoor facilities include three 18-hole golf courses; a camping area; picnic areas; playgrounds; a lake; swimming pool; tennis courts; basketball courts;

and sports fields for baseball, softball, football, volleyball, soccer, and track (JBA 2010). The majority of the recreational facilities are generally centrally located in the western portion of JBA, but the golf courses, camping, picnic, and lake recreation areas are in the south/southwestern portion of JBA. Future land use plans designate an area in the northeast corner of JBA (east of the airfield) as open space/recreation (Infinity and PBS&J 2010).

The proposed action includes one fitness center and one CDC. As JBA is gaining population because of the BRAC and National Capital Region restructuring, these facilities cannot meet projected demand because of the facilities' size, age, and condition (see Section 1.4). The fitness center is overcrowded, and the CDC is not large enough to accommodate the number of families in need of on-post childcare services.

3.11.1.4 Human Health and Safety

JBA is a limited access facility with its own force protection, law enforcement, fire protection, and health care services. JBA has three entry points: Main Gate, Pearl Harbor Gate, and Virginia Gate. The gates are in need of modification to meet current security, safety, and traffic design standards (see Section 1.4).

The primary mission of the JBA 11th Security Forces Squadron is to provide police services and force protection to the Base and to the President of the United States, U.S. senior leaders, and visiting dignitaries. The existing Security Forces facilities are inadequate and inefficient because of age, size, and location of the buildings (see Section 1.4).

The 11th Civil Engineer Squadron is responsible for JBA readiness and emergency management and fire and emergency services. The Base has two fire departments.

JBA's Malcolm Grow Medical Clinic is a multifunctional medical facility offering 27 health care specialties and emergency care. The Malcolm Grow Medical Clinic supports more than 440,000 beneficiaries in the National Capital Region. A dental clinic is also on the Base (JBA 2010).

The proposed action includes constructing an HOF to accommodate the 1HS and 811OSS. The 1HS and 811OSS operate out of several facilities that are inadequate because of location, size, age, and condition, and a lack of space for top-secret level briefings and trainings (see Section 1.4).

3.11.1.5 Environmental Justice and Protection of Children

Environmental Justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, was issued by President Clinton on February 11, 1994. The EO requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations. The initial step in the environmental justice analysis process is to identify minority and low-income populations that might be affected by implementing the proposed action.

Per CEQ guidance, minority populations should be identified where either the minority population of the affected area exceeds 50 percent or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). The U.S. Census Bureau

identifies minority populations as Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; persons of two or more races; and persons of Hispanic or Latino origin. Minority population data are presented in Table 3-14. As of 2011, 85 percent of the ROI population was of a minority race or ethnicity. The ROI had a much higher percentage of minority populations compared to Maryland and the United States, which had populations of 46 percent and 37 percent minorities, respectively. The ROI's minority population is predominantly Black or African American (65 percent), followed by Latino or Hispanic (15 percent) (U.S. Census Bureau 2012b).

Per CEQ guidance, poverty thresholds established by the U.S. Census Bureau are used to identify low-income populations (CEQ 1997). The Census Bureau defines a poverty area as a census tract with 20 percent or more of its residents below the poverty level. Poverty status is reported as the number of persons or families with income below a defined threshold level. As of 2011, the U.S. Census Bureau defined the poverty threshold level as $11,484 of annual income, or less, for an individual and $22,811 of annual income, or less, for a family of four (U.S. Census Bureau 2012d). Poverty data are presented in Table 3-14. Eight percent of ROI residents were classified as living in poverty, lower than the Maryland poverty rate of 9 percent and the national poverty rate of 14 percent. The ROI is not considered to be a low-income or poverty area.

Table 3-14.
Minority and low-income populations

Jurisdiction	Minority population, 2011	All persons below poverty level, 2006-2010 5-year average
ROI (Prince George's County)	85%	8%
Maryland	46%	9%
United States	37%	14%

Source: U.S. Census Bureau 2012b.

Protection of Children. On April 21, 1997, President Clinton issued EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. This EO seeks to protect children from disproportionately incurring environmental health risks or safety risks. The EO recognizes that a growing body of scientific knowledge demonstrates that children might suffer disproportionately from environmental health risks and safety risks. These risks arise because children's bodily systems are not fully developed; children eat, drink, and breathe more in proportion to their body weight; because their size and weight can diminish protection from standard safety features; and because their behavior patterns can make them more susceptible to accidents. On the basis of these factors, President Clinton directed each federal agency to make it a high priority to identify and assess environmental health risks and safety risks that might disproportionately affect children. President Clinton also directed each federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

JBA proposes to fully comply with EO 13045 by incorporating these concerns in decision-making processes supporting JBA policies, programs, projects, and activities. In this regard, JBA ensures that it would identify, disclose, and respond to potential adverse social and environmental effects on children in the area affected by a proposed action.

Children are present at JBA as residents and visitors (e.g., residing in on-Base family housing or lodging, using recreational facilities, attending events). Precaution is taken for child safety through a number of means, including using fencing, limiting access to certain areas, and requiring adult supervision. The proposed CDC site is adjacent to a residential neighborhood and a recreational area.

3.11.2 Environmental Consequences

3.11.2.1 Population, Employment, and Income (EIFS model results)

Proposed Actions. The economic effects of implementing the proposed actions are estimated using the Economic Impact Forecast System (EIFS) model, a computer-based, economic tool that calculates multipliers to estimate the direct and indirect effects resulting from an action. Changes in spending and employment that would be caused by the proposed actions represent the direct effects of the actions. Using the input data and calculated multipliers, the model estimates ROI changes in population, employment, income, and sales volume, accounting for the total direct and indirect effects of the actions.

For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine that range, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. That analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action is above the positive RTV or below the negative RTV, the effect is considered significant. Appendix C discusses the methodology in more detail and presents the model inputs and outputs developed for this analysis.

Short-term minor beneficial economic effects would be expected on the regional economy from implementing the proposed action, as determined by the EIFS model. The expenditures and employment associated with the proposed demolition, renovation, and construction projects would increase ROI employment, income, and sales volume (Table 3-15 and Appendix C). The economic benefits would be short term, lasting for the duration of the development period. Such changes in sales volume, employment, and income would be within historical fluctuations (i.e., within the RTV ranges) and would be considered minor. The proposed facility removals also would improve JBA's operational efficiency by disposing of substandard and inefficient facilities that have surpassed their life expectancy and that have high operation and maintenance costs. No effects would be expected on population. The proposed actions do not include assigning new personnel from outside the region to JBA; therefore, this action would not change the population of JBA or the ROI.

No Action. Long-term minor adverse effects would be expected. The existing facilities have high repair and maintenance costs because of their age and condition. JBA would continue to pay higher costs to maintain buildings that are inadequate for their intended use and are beyond their economic life.

3.11.2.2 Recreation and Services

Proposed Actions. Long-term minor beneficial and adverse effects on recreation and services would be expected. A new fitness center would provide improved opportunity for leisure activities and relieve overcrowding at existing fitness facilities. It would improve the quality of

Table 3-15.
EIFS model output

Variable	Projected total change	Percent change	RTV range
Sales (business) volume	$103,309,100	0.35%	-5.32% to 13.74%
Income	$18,889,410	0.09%	-4.48% to 11.72%
Employment	434	0.11%	-4.17% to 4.59%
Population	0	0.00%	-0.85% to 3.30%

Source: EIFS model

life of Airmen and their ability to meet their physical fitness requirements. The new CDC would provide additional capacity to accommodate JBA families with on-post child care services at a convenient location, with operational hours to suit a military schedule, and at an affordable cost to military personnel. The proposed fitness center and CDC would improve the health, welfare, and quality of life for JBA personnel and their families. Loss of the Base library and reconfigured library functions in the Community Activity Center would have a long-term minor adverse effect on the Base population. It is likely that fewer book, newspaper, and magazine holdings would be available in the new location, and fewer library functions would be available to the Base population, which could adversely affect Base personnel who lack the time and transportation to go to an off-base library (the closest of which is about 5 miles from the Base).

Construction of a new West Fitness Center on the proposed parcel would remove two ball fields from the JBA inventory of recreational facilities, and a new CDC on the proposed parcel would remove a soccer field. The proposed actions do not involve replacing these facilities, but the JBA 2010 General Plan Update provides details on future plans for recreational facilities at JBA. Please see section 3.12.2.1 for further discussion.

No Action. Long-term minor adverse effects would be expected. Continued use of the West Fitness Center and CDC #1 would perpetuate deficiencies in quality of life for JBA personnel and their families. These facilities have insufficient capacity, cannot accommodate demand, and have infrastructure conditions (e.g., poor ventilation, poor lighting, mold) that adversely affect their effective use and increases maintenance costs.

3.11.2.3 Human Health and Safety

Proposed Actions. Long-term minor beneficial effects would be expected. The access gates would be modified to meet current security, safety, and traffic design standards. The proposed new HOF and Security Forces Group Complex would replace inadequate and inefficient facilities and consolidate these operations. The buildings would have secure space for top-secret level briefings and training. The new facilities would comply with DoD AT/FP measures and would have all the safety measures required by law (such as fire detection and protection systems and sprinklers). The new HOF and Security Forces Group Complex would improve the working conditions and the effectiveness of the personnel and their ability to accomplish their critical role in the JBA mission.

No Action. Long-term minor adverse effects would be expected from operating inadequately sized facilities and facilities that do meet current traffic and safety standards. Under the No Action Alternative, the proposed Security Forces Group Complex and HOF would not be constructed. The existing facilities cannot effectively accommodate the Airmen and equipment

assigned to JBA. Adverse effects on personnel morale and mission accomplishment would be expected from crowded and inefficient work environments. The JBA access gates also would not be modified, which would perpetuate safety and security deficiencies.

3.11.2.4 Environmental Justice and Protection of Children

Proposed Actions. Short-term minor adverse effects on the protection of children could occur. The proposed CDC site is near areas where children are typically present, including residential housing and a recreation area. Because construction sites can be enticing to children, construction activity could be an increased safety risk. Therefore, during construction, appropriate federal and state safety measures and health regulations would be followed to protect the health and safety of all residents. Construction contractors would be responsible for complying with Air Force and Occupational Safety and Health Administration regulations. Barriers and *no trespassing* signs would be placed around the perimeter of construction sites to deter children from playing in these areas, and construction vehicles and equipment would be secured when not in use. These measures would reduce the risk of potential harm to children.

No environmental justice effects would be expected. Implementing the proposed demolition and constructions actions would not result in disproportionate adverse environmental or health effects on low-income or minority populations.

No Action. No effects would be expected. The No Action Alternative would not result in disproportionate adverse environmental or health effects on low-income or minority populations or children. The No Action Alternative is not an action that could substantially affect populations covered by EO 12898 or 13405 by excluding persons, denying persons benefits, or subjecting persons to discrimination or disproportionate environmental or human health risks.

3.12 LAND USE AND VISUAL RESOURCES

3.12.1 Affected Environment

The main Base's 4,390 acres have 10 land use classifications. The approximate acreages of those land uses are summarized in Table 3-16 (AAFB 2010).

Table 3-16.
Existing land use acreages

Land use	Acres	Percentage of JBA
Administration	127	2.9%
Aircraft Operation and Maintenance	366	8.3%
Airfield	1,525	34.7%
Community	136	3.1%
Industrial	144	3.3%
Medical	47	1.1%
Open Space	784	17.8%
Outdoor Recreation	731	16.7%
Residential	508	11.6%
Water	22	0.5%
Total	4,390	100.0%

Source: AAFB 2010

JBA is divided into western and eastern sections, separated by the airfield that runs north to south. The western section of the main Base contains most of the land area. The land use designations of the parcels of land on which the proposed projects would occur are provided in Table 3-17.

Table 3-17.
Land use designations of proposed projects areas

Project	Existing land use	Surrounding land uses	Future land use	Future surrounding land uses
Helicopter Operations Facility	Airfield Operations	Community	Airfield Operations	Industrial
West Fitness Center	Outdoor Recreation	Administrative, Community	Outdoor Recreation	Administrative, Housing, Community
Security Forces Group Complex	Community	Housing, Airfield Operations	Administrative	Housing, Industrial, Outdoor Recreation
Child Development Center	Outdoor Recreation	Housing, Community	Outdoor Recreation	Community
Building 1845 parking lot	Administrative	Open Space	Administrative	Community , Industrial
Building 1988	Administrative	Open Space	Administrative	Community
Building 1429 (demolition)	Administrative	Open Space, Airfield Operations	Outdoor Recreation	Airfield Operations
Building 1679 (demolition)	Community	Housing, Airfield Operations	Industrial	Housing, Administrative, Outdoor Recreation, Community
Building 1732 (demolition)	Airfield Operations	Community	Administrative	Industrial, Airfield Operations
Canopy and fuel tank removal at Building 1685	Community	Housing	Industrial	Outdoor Recreation
Main Gate	Open Space	Open Space	Industrial	Industrial
Pearl Harbor Gate	Community	Open Space, Administrative	Industrial	Industrial
Virginia Gate	Community	Outdoor Recreation, Housing	Outdoor Recreation	Community

Existing land use refers to the parcel's current land use designation, as shown in Figure 4.19 of the 2010 General Plan Update (PBS&J 2010). Future land use refers to the proposed land use designation of the parcel, as shown in Figure 4.23 of the 2010 General Plan Update.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Actions

No adverse effects on land use would be expected from any of the construction or demolition projects proposed in the IDEA. The designated land uses of the parcels and surrounding land uses would be compatible with the proposed uses under each construction project. No land use changes would result from undertaking the facility removal and gate modification projects.

Construction of a new West Fitness Center on the proposed parcel would remove two ball fields from the JBA inventory of recreational facilities, and a new CDC on the proposed parcel would remove a soccer field. The proposed actions do not involve replacing these facilities, but the JBA

2010 General Plan Update provides details on future plans for recreational facilities at JBA. Notably, the future land use plan provides for a recreational area in the West Administrative Area of the base and indicates the creation of four ball fields and two soccer fields in that area, positioned north of D Street and between Colorado Avenue and Brookley Avenue. Thus, while there could be a temporary loss of recreational fields from the construction of a new fitness center and a new CDC, there are plans to replace them with fields in a centralized area of the base.

3.12.2.2 No Action Alternative

No adverse effects on land use would result from implementing the No Action Alternative.

3.13 SUSTAINABILITY AND GREENING

3.13.1 Affected Environment

In accordance with EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, the USAF would incorporate sustainability and greening practices by minimizing waste during construction, recycling appropriate materials, and purchasing items produced from recycled materials. EO 13423 is a directive that requires federal agencies to implement sustainable practices for a variety of water-, energy-, and transportation-related activities. EO 13514, *Federal Leadership in Environmental, Energy and Economic Performance*, makes reducing GHG emissions a priority of the federal government. EO 13514 requires the USAF to develop sustainability plans focused on cost-effective projects and programs to increase energy efficiency, reduce fleet petroleum consumption, conserve water, reduce waste, support sustainable communities, and leverage purchasing power to promote environmentally responsible products and technologies. Where possible, the USAF would incorporate sustainable building and GHG-reducing concepts into the engineering design process.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Actions

Long-term beneficial effects on sustainability at JBA would be expected from implementing the proposed projects. Redeveloping outdated and inefficient facilities with modern and more functional facilities adheres to the Base's mission to develop new infrastructure that meets federal sustainability and greening goals and practices. New construction would meet LEED Silver standard designation and would meet or exceed the requirements of the Energy Policy Act of 2005, Energy Independence and Security Act of 2007, and EOs 13423 and 13514. To the extent possible, the construction projects would be implemented using sustainable design concepts. Requirements for EnergyStar-rated products and green products in accordance with EO 13423 would be incorporated into the specifications of the projects.

3.13.2.2 No Action Alternative

Long-term minor adverse effects would be expected under the No Action Alternative. Implementing the No Action Alternative would result in the continued operation of buildings with inefficient utility systems, construction materials, and designs. Transportation systems would not be affected under the No Action Alternative.

3.14 MITIGATION SUMMARY

Mitigation measures are used to reduce the adverse effects of project implementation to below significance. No significant adverse effects would result from implementation of the proposed actions (see Table 3-18), so no mitigation measures would be required for implementation of the proposed projects in the IDEA. BMPs, such as those used to control erosion and stormwater runoff, to minimize air pollutant emissions, and to reduce energy consumption from facilities would be implemented as described in the EA.

Table 3-18.
Summary of potential environmental consequences

	Environmental effects	
Resource	**Proposed action**	**No action alternative**
Noise	Short- and long-term minor adverse	No effects
Air quality	Short- and long-term minor adverse	No effects
Safety and occupational health	No effects	Long-term minor adverse
Earth resources	Short-term minor adverse	No effects
Water resources	Short-term minor adverse	No effects
Infrastructure and utilities	Long-term minor adverse	No effects
Transportation	Short-term minor adverse	No effects
Hazardous materials and wastes	Short-term minor adverse	No effects
Biological resources	No effects	No effects
Cultural resources	No effects	No effects
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Environmental justice	No effects	No effects
Protection of children	Short-term minor adverse	No effects
Land use	No effects	No effects
Sustainability and greening	Long-term minor beneficial	Long-term minor adverse
Cumulative effects	Minor beneficial and adverse	N/A

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SECTION 4.0
CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.1 CUMULATIVE EFFECTS

Cumulative effects on environmental resources result from the incremental effects of an action when combined with other past, present, and reasonably foreseeable future projects in the ROI. Cumulative effects can result from individually minor but collectively substantial, actions taken over a period of time. In accordance with NEPA, a discussion of cumulative effects that could result from projects that are proposed or anticipated in the foreseeable future is required.

Known actions proposed over the next 5 years at JBA are listed below in Table 4-1. As an active military installation, JBA and its tenant organizations undergo changes in mission and training requirements in response to defense policies, current threats, and tactical and technological advances, and as such, require new construction, facility improvements, infrastructure upgrades, and ongoing maintenance and repairs on a continual basis. Known construction and upgrade projects are included in this analysis, although future requirements could change and alter the reality of cumulative effects. NEPA analysis will be conducted for future projects as necessary.

4.1.1 Noise

Cumulative construction noise would be expected from concurrent projects within approximately 1500 feet of each other (see Figure 3-1). The cumulative noise effects would be localized, temporary, and noticeable only in the immediate construction site vicinity, and would not create long-term adverse effects. Cumulative effects from noise are anticipated to be minor.

4.1.2 Air Quality

In general, combustive and fugitive dust emissions from proposed construction and demolition activities under the proposed actions and the activities listed in Table 4-1 would produce air pollutants locally that would persist for a short duration and would not result in any long-term effects on the air quality of AQCR 47. Operational emissions from new facilities would produce cumulative long-term increases in air pollutant emissions. The State of Maryland takes into account the effects of all past, present, and reasonably foreseeable emissions during the development of its State Implementation Plan, in which the state accounts for all significant stationary, area, and mobile emission sources. Estimated emissions generated by known JBA projects would be *de minimis* and would not contribute significantly to adverse cumulative effects to air quality.

4.1.3 Soils

Site preparation work for new facilities and site disturbance during facility demolitions would only affect soils on the project site and would not affect the overall soil geography on JBA. Overall soil conditions on the base would not be altered because most soils of JBA have been substantially disturbed previously. Cumulative effects on soils and geologic resources are anticipated to be minor.

Table 4-1.
Summary of anticipated cumulative effects

Project Name/Description	Anticipated Fiscal Year						
	2013	2014	2015	2016	2017	2018	2019
IDEA Projects							
Replace CDC #1							
Replace West Fitness Center							
Construct HOF							
Construct Security Forces Group Complex							
Upgrade Main, Pearl Harbor, VA gates							
Replace Building 1988							
IDEA facility demolitions							
Facility demolition (ongoing)							
Building 1845 parking lot addition							
Other Projects							
Regrade shoulder on Taxiway W-1							
Repair West Apron							
Taxiway Charlie reconstruction							
Taxiway November reconstruction							
West Runway extension							
ASA Phase II							
Construct addition to Building 1900							
Construct Consolidated Aircraft Supply Center							
Construct new BCE Complex – 11th Wing							
Construct 21-point enclosed range (2019)							
Replace USAPAT facility							
Replace Taxiway Sierra							
Replace Taxiway Whiskey							
Replace Pads 12, 13							
Hot pit refueling pad							
Domino, hangar, taxiway, ramps							
Replace airfield stormwater infrastructure							
Westphalia town development (Prince George's Co.)							
Anticipated Cumulative Effects	Sm	Sm	Sm	Sm	Sm	SM	Sm

Note: m = minor, M = moderate, S = short-term

4.1.4 Water Resources

Sediment runoff from individual construction sites would be controlled through the use of BMPs according to MDE-approved erosion and sediment control plans. Although some sediment from project sites would be expected to reach surface waters, water quality would not be measurably

affected by pollutant inputs from construction projects. Cumulative effects on water resources are anticipated to be minor.

4.1.5 Socioeconomics

Beneficial cumulative socioeconomic effects would be expected. In addition to the actions proposed in this EA, other projects on JBA and commercial, residential, and infrastructure development or improvement projects in the ROI—such as the Westphalia town development northeast of JBA—would also have beneficial effects on the local economy. No cumulative adverse effects on the protection of children would be expected.

4.1.6 Infrastructure

The proposed construction and demolition projects associated with the proposed action and those actions listed in Table 4-1 could result in some temporary interruptions of utility services, but the effects would be temporary, occurring only for the duration of the construction period. In general, infrastructure at JBA would improve under these actions because of the replacement of old, inefficient facilities with new, efficient ones. Cumulative effects on infrastructure are anticipated to be minor.

4.1.7 Transportation

Changes in the transportation caused by individual construction and demolition projects at JBA are generally small and localized in the general vicinity of a project. Regional projects outside JBA in general do not affect traffic and transportation on the base. As a result, the traffic impacts during construction and demolition would not contribute appreciably to cumulative effects.

4.1.8 Hazardous Materials and Waste

Construction and demolition projects in general involve the use of hazardous materials and generate waste that can be recycled or taken to a landfill. There are no known capacity issues at area landfills, and recycling or reuse of waste generated during construction reduces the quantity of waste disposed of in landfills. Hazardous materials and wastes would be handled, stored, and disposed of in accordance with applicable regulations, and would therefore not create cumulative adverse effects. Cumulative impacts as a result of hazardous materials and waste management are expected to be minor.

4.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA CEQ regulations require environmental analyses to identify "...any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented" (40 CFR Section 1502.16). Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Building construction material such as gravel and gasoline usage for construction equipment would constitute the consumption of non-renewable resources.

The primary irretrievable effects of the proposed action would involve the use of energy, labor, materials, and funds, and the conversion of some land from an undeveloped condition to developed through construction. However, all of the land proposed to be utilized has been developed in the past. Irretrievable effects would occur as a result of construction, facility

operation, and maintenance activities. The irretrievable loss of energy, labor, materials, and funds associated with implementation of the proposed action would be inconsequential to the amount of these resources available and being used in other areas around JBA. Direct losses of biological productivity and the use of natural resources from these effects would be inconsequential.

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SECTION 6.0
REFERENCES

AirNav. 2012. Airport Information. <http://airnav.com/>. Accessed October 2012.

Amtrak. 2012. Amtrak Station Look-Up. <http://www.amtrak.com/find-train-bus-stations>. Accessed October 2012.

ANSI. 2003. *American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-term measurements with an observer present*. American National Standard Institute. ANSI S12.9-1993 (R2003)/Part 3.

BEA. 2012. *Regional Economic Accounts, Local Area Personal Income, Total Employment by Industry*. <http://www.bea.gov/regional/reis/default.cfm?&selTable=CA25N&series=NAICS >. Bureau of Economic Analysis. Accessed September 2012.

BLS. 2012. *Local Area Unemployment Statistics*. <http://www.bls.gov/data/#unemployment>. Bureau of Labor Statistics. Accessed October 2012.

CARB. 2012. EMFAC Emission Rates Database. <http://www.arb.ca.gov/jpub/webapp// EMFAC2011WebApp/rateSelectionPage_1.jsp>. California Air Resources Board. Accessed September 2012.

CEQ. 2010. *Memorandum for Heads of Federal Departments and Agencies on Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*. <http://ceq.hss.doe. gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf>. Council on Environmental Quality, Washington, DC. 18 February. Accessed September 2012.

Department of the Air Force. 2012. *Draft Environmental Assessment, Stormwater System Repair and Upgrades*. Joint Base Andrews-Naval Air Facility Washington, Maryland. February.

DOD. 2010. *Installations Practice Energy Conservation*. <http://www.defense.gov/releases/ release.aspx?releaseid=13276>. Department of Defense. Accessed September 2012.

DoD OEA. 2011. *Joint Base Andrews Naval Air Facility Washington*. <http://www.oea.gov/index.php/ component/content/article/166-andrews-air-force-base-maryland?template=modal>. U.S. Department of Defense Office of Economic Adjustment. Accessed September 2012.

DOE. 2003. *Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, Commercial Buildings Energy Consumption Survey*. U.S. Department of Energy, Washington, DC. <http://www.eia.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html>. U.S. Department of Energy. Accessed September 2012.

FHWA. 2011. *Highway Traffic Noise: Analysis and Abatement Guidance.* December 2011. Federal Highway Administration. <http://www.fhwa.dot.gov/environment/noise/ regulations_and_guidance/analysis_and_abatement_guidance/>. Accessed September 2012.

Ghigiarelli, E., Jr. 2004. *A Guide to Maryland's Coastal Zone Management Program Federal Consistency Process* (online version). Published by the Maryland Department of the Environment. <http://www.dnr.state.md.us/bay/czm/fed_consistency_guide.pdf>. Accessed December 18, 2012.

Harris, C.M. 1998. *Handbook of Acoustical Measurement and Noise Control*. Acoustical Society of America. Sewickley, PA.

Idcide. 2012. *Weather and Climate for Joint Base Andrews*. <http://www.idcide.com/weather/md/andrews-afb.htm>. Accessed October 2012.

Infinity and PBS&J. 2010. *General Plan Update, Joint Base Andrews-Naval Air Facility, Washington, Maryland*. January.

IPCC. 2007. *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom. <http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#1>. Intergovernmental Panel on Climate Change. Accessed September 2012.

ITE. 2003. *Transportation Engineers Trip Generation Manual*. 7th Edition. Institute of Transportation Engineers, Washington, DC.

ITE. 2009. *Roundabouts and Signals: Harmony Even with Increasing Traffic Volumes*. ITE Journal Article 30, February. <http://www.ite.org/traffic/documents/JB09BA30.pdf>. Institute of Transportation Engineers, Washington, DC. Accessed October 2012.

ITE. 2010. *Transportation Engineers Parking Generation Manual*. 4th Edition. Institute of Transportation Engineers, Washington, DC.

JBA. 2009. *General Plan Update Joint Base Andrews Naval Air Facility, Washington, MD*. Joint Base Andrews-Naval Air Facility, Washington, Maryland.

JBA. 2012a. *Infrastructure Assessment for Joint Base Andrews*. Joint Base Andrews-Naval Air Facility, Washington, Maryland.

JBA. 2012b. *Joint Base Andrews 2011 Emissions Certification Report*. Joint Base Andrews-Naval Air Facility, Washington, Maryland.

JBA. 2010. *Joint Base Andrews 2011 Base Guide*. <http://www.andrews.af.mil/shared/media/document/AFD-110418-017.pdf>. Accessed September 2012.

JBA. 2011. *General Plan Environmental Assessment for Joint Base Andrews-Naval Air Facility, Washington, Maryland*. Joint Base Andrews-Naval Air Facility, Washington, Maryland.

JBA. 2012b. *Joint Base Andrews 2011 Emissions Certification Report*. Joint Base Andrews-Naval Air Facility, Washington, Maryland.

JBA. Undated a. *PD-680 Spill Site ST-10*. <http://www.andrews.af.mil/library/ environmental/environmentalsites/st10.asp>. Joint Base Andrews-Naval Air Facility, Washington, Maryland. Accessed October 21, 2012.

JBA. Undated b. *Military Family Housing Area ST-19*. <http://www.andrews.af.mil/library/environmental/environmentalsites/st19.asp>. Joint Base Andrews-Naval Air Facility, Washington, Maryland. Accessed October 21, 2012.

JBA. Undated c. *AAFES Service Station ST-17*. <http://www.andrews.af.mil/library/environmental/environmentalsites/st17.asp>. Joint Base Andrews-Naval Air Facility, Washington, Maryland. Accessed October 21, 2012.

MDOT. 2009. *Traffic and Intersection Improvement Studies for Base Realignment and Closure Andrews AFB*. <http://www.mdot.maryland.gov/Office of Planning and Capital Programming/BRAC/Documents/Andrews_Summary_Report.pdf>. Maryland Department of Transportation. Accessed October 2012.

MDOT. 2012. *Prince George's County Average Daily Traffic Count Map*. <http://www.roads.maryland.gov/Traffic_Volume_Maps/Traffic_Volume_Maps.pdf>. Maryland Department of Transportation. Accessed October 2012.

MDP. 2010. *Historical and Projected Total Population for Maryland's Jurisdictions*. <http://www.mdp.state.md.us/msdc/popproj/TotalPop_2040.pdf>. Maryland Department of Planning. Accessed September 2012.

MNCPPC. 2009. *Joint Base Andrews Naval Air Facility Washington Joint Land Use Study*. <http://www.pgplanning.org/Resources/Publications/JBase_Study.htm>. Maryland-National Capital Park and Planning Commission. Accessed September 2012.

SCAQMD. 1993. *CEQA Air Quality Handbook*. South Coast Air Quality Management District, Diamond Bar, CA.

URS. 2012. *Joint Base Andrews Storm Water Final Draft Environmental Assessment*. URS Corporation, Herndon, VA. October 2012.

US Census Bureau. 2012a. *American Community Survey 2011 1-Year Estimates*. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 2012.

US Census Bureau. 2012b. *State and County QuickFacts*. < http://quickfacts.census.gov/qfd/index.html>. Accessed July 2012.

US Census Bureau. 2000. *Total Population, Census 2000 Summary File 1 (SF1) 100-Percent Data*. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 2012.

US Census Bureau. 2005. *Interim Projections of the Total Population for the United States and States: April 1, 2000 to July 1, 2030*. <http://www.census.gov/population/projections/SummaryTabA1.pdf>. Accessed September 2012.

US Census Bureau. 2010. *Total Population, Census 2010 Summary File 1*. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 2012.

US Census Bureau. 2012c. *Summary File 1, DP-1 Profile of General Population and Housing Characteristics: 2010*. http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml>. Accessed September 2012.

US Census Bureau. 2012d. *Preliminary Estimate of Weighted Average Poverty Thresholds for 2011*. <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>. Accessed September 2012.

USACE Baltimore District. 2007. *Revised Integrated Natural Resources Management Plan (2006-2011) for Andrews Air Force Base, Anne Arundel and Prince George's Counties, Maryland*. U.S. Army Corps of Engineers, Baltimore District. Prepared for Andrews Air Force Base. June.

USDA-NRCS. 2012. *Web Soil Survey*. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. U.S. Department of Agriculture, Natural Resources Conservation Service. Accessed November 28, 2012.

USEPA. 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. Publication NTID300.1. <http://www.co.marin.ca.us/depts/cd/ main/pdf/eir/Big Rock/Suplimentals/13. EPA1971-Noise from Construction Equipment_Operations _Building-Equip_Home-Appliances.pdf>. U.S. Environmental Protection Agency, Washington, DC. Accessed September 2012.

USEPA. 1995. *Compilation of Air Pollutant Emission Factors, AP-42*. 5th edition, Vol. I: Stationary Point and Area Sources. <http://www.epa.gov/ttnchie1/ap42/>. U.S. Environmental Protection Agency, Washington, DC. Accessed September 2012.

USEPA. 2005. *Methodology to Estimate the Transportable Fraction (TF) of Fugitive Dust Emissions for Regional and Urban Scale Air Quality Analyses*. <http://www.epa.gov/ttnchie1/emch/dustfractions/ transportable_fraction_080305_rev.pdf>. U.S. Environmental Protection Agency, Washington, DC. Accessed September 2012.

USEPA. 2012a. *Attainment Status*. <http://www.epa.gov/airquality/greenbook/anay_wa.html>. U.S. Environmental Protection Agency, Washington, DC. Accessed October 2012.

USEPA. 2012b. *AirData Web Site*. <http://www.epa.gov/airdata/ad_rep_con.html>. U.S. Environmental Protection Agency, Washington, DC. Accessed October 2012.

USEPA. 2012c. *Climate Change - Health and Environmental Effects*. <http://epa.gov/climatechange/ index.html>. U.S. Environmental Protection Agency, Washington, DC. Accessed October 2012.

USGS. 1965. *Anacostia quadrangle. District of Columbia-Maryland*. 7.5-minute series. U.S. Department of the Interior, Geological Survey. Photorevised 1979.

Appendix A
Interagency and Intergovernmental Coordination for Environmental Planning Correspondence and Distribution List

Responses to Comments Received

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 11TH WING (AFDW)
ANDREWS AIR FORCE BASE, MARYLAND 20762

9 October 2012

MEMORANDUM FOR: SEE DISTRIBUTION

FROM: 11 CES/CEA
3466 North Carolina Avenue
Joint Base Andrews, MD 20762-4803

SUBJECT: Description of Proposed Action and Site Map for Multiple Projects at Joint Base Andrews-Naval Air Facility Washington, Maryland

1. Joint Base Andrews is preparing an Installation Development Environmental Assessment (IDEA) for implementation of multiple projects at Joint Base Andrews-Naval Air Facility, Washington, MD (JBA). Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* [USC] 4321–4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] Sections 1500–1508), and 32 CFR Part 989, *et seq*., JBA will prepare an IDEA that considers the potential consequences to human health and the natural environment. The IDEA will examine the effects of the proposed projects and will include analysis of the required no-action alternative.

2. In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we invite your agency to comment on the Proposed Action described below and provide any relevant information about resources under your jurisdiction that may be present in the project area as indicated on the new site plan in the attachments.

3. Also enclosed is a copy of the distribution list for those federal, state, and local agencies to be contacted regarding this IDEA. If you consider any additional agencies should review and comment on this proposal, please feel free to include them in a re-distribution of this letter and the attached materials.

4. An attachment to this letter describes each project being analyzed in the IDEA. If undertaken, each project will be completed in accordance with applicable Executive Orders with the goal of being equivalent to US Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver level.

5. Your assistance in providing information is greatly appreciated. Please provide written comments within 15 days from the date of this letter to Anne Hodges, 11 CES/CEAO, 3466 North Carolina Avenue, Joint Base Andrews, MD 20762 or send via e-mail to anne.hodges@afncr.af.mil. If you need further information, please contact Ms. Hodges at 301-981-1426.

STEVE RICHARDS
Chief of Environmental Management

Attachments:

Vicinity Map and Site Plan (Existing & New)
DISTRIBUTION: (listed on next page)

DISTRIBUTION

Mr. Greg Golden
Environmental Review Unit
Maryland Department of Natural Resources
Tawes State Office Building B-3
580 Taylor Avenue
Annapolis, MD 21401

Mrs. Linda C. Janey, J.D.
Director, Maryland State Clearinghouse Maryland Office of Planning, Room 1104
301 West Preston Street
Baltimore, MD 21201-2365

Ms. Brigid E. Kenney
Planning Director
Maryland Department of the Environment
Office of the Secretary
1800 Washington Blvd
Baltimore, MD 21230

Marie Halka
Deputy Director
Maryland Department of the Environment
SSA-Director's Office
1800 Washington Blvd.
Baltimore, MD 21230

Mr. J. Rodney Little
Department of Housing and Community Development
Maryland Historical Trust
Office of Preservation Services
100 Community Place
Crownsville, MD 21032

Ms. Genevieve Larouche
U.S. Fish & Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

Ms. Fern Piret
Director of Planning
Prince George’s County Department of Planning
14741 Governor Oden Bowie Drive, Room 4150
Upper Marlboro, MD 20772

Ms. Barbara Rudnick
NEPA Team Leader, Office of Environmental Programs (3EA30)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Mr. Alex Romero
National Capital Parks-East
1900 Anacostia Dr., WE
Washington, DC 20020

Mr. Michael Weil
Director, National Capital Planning Commission
401 9th Street, NW
North Lobby, Suite 500
Washington, DC 20004

ACTIONS PROPOSED IN THE IDEA AND ALTERNATIVES

Under the proposed actions, the Air Force would undertake up to six construction projects (entailing the demolition of four existing structures), remove six facilities, and make modifications to three gates at Joint Base Andrews (JBA) (Figure 1). Construction projects would involve replacing outdated and inadequate facilities with new, energy-efficient ones that meet Air Force facility requirements, have lower operating costs than existing facilities, enhance mission accomplishment, and increase operational efficiencies. Separate demolition projects would remove unneeded facilities from the JBA inventory and make space available for mission-essential purposes.

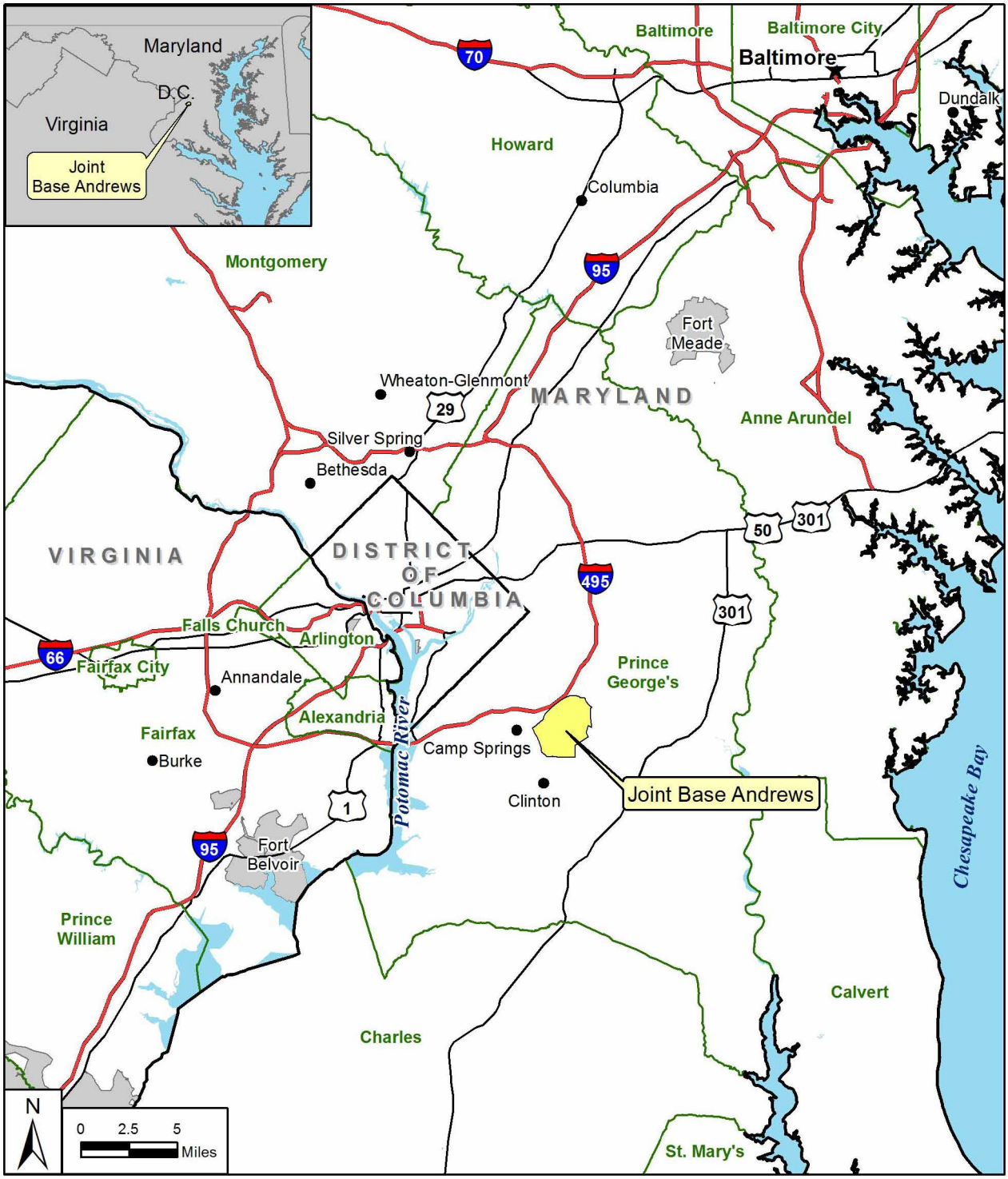
The exterior and interior design of the new and renovated facilities would follow the design guidelines outlined in the *Air Mobility Command Civil Engineering Squadron Design Guide* and the *Andrews AFB Architectural Compatibility Design Plan*. Adherence to these standards would maintain a consistent and coherent architectural character throughout JBA. Landscaping in the form of berms, plants, shrubs, and trees, would be used to enhance the professional architectural character and blend the buildings with the surrounding environment and for anti-terrorism/force protection (AT/FP) purposes. AT/FP measures would be incorporated in accordance with the *USAF Installation Force Protection Guide*. In addition, the design of construction projects would be consistent with the requirements laid out in EO 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*.

None of the projects proposed in this IDEA would affect floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources. The siting of each of the projects, approximately as shown in Figure 2, was selected during the planning process for each project on the basis of mission requirements, environmental considerations, and overall base planning guidelines. The precise layout and design of these projects is in the early planning stages, and the exact surveyed locations and layouts are not finalized. If locations and final layout of the projects differ substantially from those anticipated (in location, layout, or potential environmental consequences), further environmental analysis would be completed. If it is determined that future projects, conceived outside this IDEA, affect sensitive resources, separate environmental analysis would be completed.

All projects would be designed to comply with current fire and safety codes. To the extent possible, the proposed construction projects would be implemented using sustainable design concepts. Sustainable design concepts emphasize state-of-the-art strategies for site development, efficient water and energy use, and improved indoor environmental quality. Each project has been sited to result in minimum effect on the natural or socioeconomic environment of JBA. The proposed construction projects are necessary to support the JBA future mission requirements and to comply with force protection criteria. To continue enhancing the compatibility of designated land uses at JBA, the proposed new facilities would be constructed in appropriate land use areas across the installation and in compliance with the Maryland Department of Environment Water Management Administration requirements.

Demolition of the existing facilities would consist of the complete tear down and removal of building structures, equipment, and related impervious surfaces such as parking lots in the building demolition project area. Utilities at the project site would be capped and left in place. Solid and hazardous waste (including asbestos-containing materials and lead-based paint) would be disposed of consistent with federal, state, and base requirements. Potential recycling opportunities, such as from copper piping, aluminum, and steel, would be identified by the base staff and coordinated with the demolition contractor to ensure that materials generated during demolition are recycled to the greatest extent possible.

The individual proposed actions are described in detail below, and their locations are shown in Figure 2.

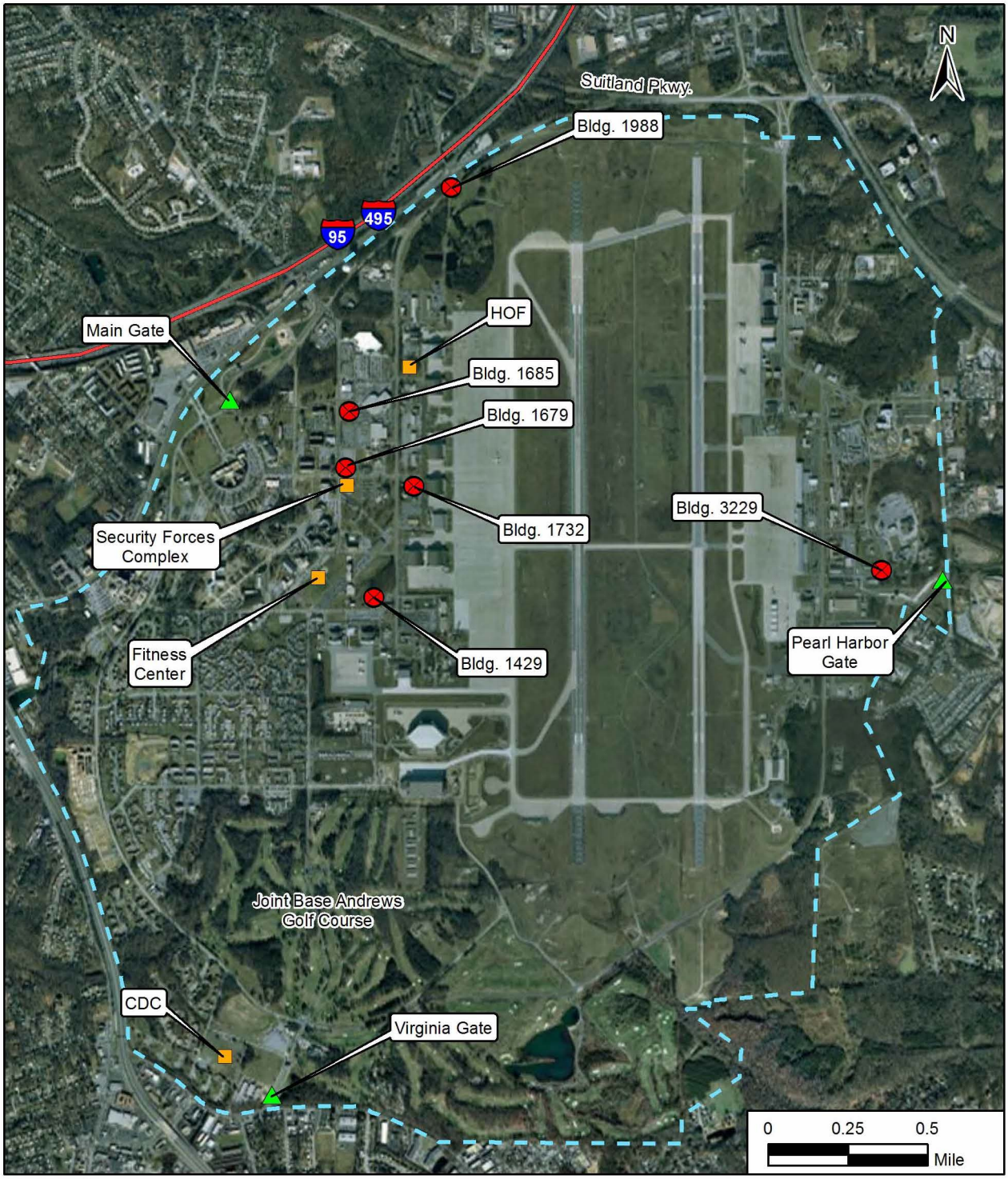


LEGEND

- Joint Base Andrews
- Interstate Highway
- U.S. Route
- County Boundary
- Surface Water

Location of Joint Base Andrews-Naval Air Facility Washington

Figure 1



LEGEND

- JBA Boundary
- Facilities to be Removed
- New Construction
- Gates to be Upgraded

Locations of Actions Proposed in the IDEA

Figure 2

Helicopter Operations Facility

Proposed Action

Under this proposed action, a Helicopter Operations Facility would be constructed on the north side of G Street along the west flightline adjacent to Hangar 1 and the south ramp to accommodate the 1st Helicopter Squadron (1HS) and 811th Operational Support Squadron (811OSS) (Figure 3). The new facility would have two stories with an area of 59,524 square feet (SF). The Pathfinder fence would be relocated so that the Helicopter Operations Facility would be inside it.

This project is needed to provide adequate space for the current mission and for a known future mission increase of approximately 200 percent. The 1HS and 811OSS occupy dispersed locations at JBA, with the majority of personnel from these organizations occupying a hangar that cannot adequately accommodate the needed personnel, does not have capacity for planned growth, and lacks appropriate space for Top Secret-level briefings, training, and discussions. The proposed action does not include any facility demolition.

Constructing a Helicopter Operations Facility would have no effect on floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources.

No Action Alternative

The No Action Alternative for this project would be to not construct a Helicopter Operations Facility. Personnel from the 1HS and 811OSS would continue to occupy a hangar that is ill-equipped to accommodate personnel, and the 1HS and the 811 OSS would be unable to meet their 200 percent mission increase. With 140 new personnel and seven new aircraft arriving by FY 16, the space deficit would require these organizations to further disperse, causing mission failure because of the immediate response requirements of their contingency response mission. Temporary trailers totaling 4,000 SF would continue to be used on the hangar floor to accommodate office space and aircrew flight equipment workshop needs at a direct cost to the mission, because they occupy precious aircraft and maintenance space.

Alternatives Considered but Eliminated from further Consideration

All known alternative options were considered in developing this project and dismissed as not meeting the purpose of and need for the project. Initially, two sites were considered for the Helicopter Operations Facility, one near the north end of the west flightline near Hangars 1 and 2, and the other site near the south end of the west flightline near Hangars 8 and 9. The site near Hangars 8 and 9 was eliminated from consideration because it does not offer adequate space to support all 1HS assets. Various configurations were considered for the site near Hangar 1, and ultimately the option shown in Figure 1 was selected.

LEGEND

Proposed Location of
Helicopter Operations Facility

Proposed Location of the Helicopter Operations Facility

Figure 3

West Fitness Center

Proposed Action

Under this proposed action, a new West Fitness Center would be constructed southeast of the existing West Fitness Center where soccer fields are now (Figure 4). The new facility would have an area of 90,954 SF. The existing West Fitness Center would be demolished after the new West Fitness Center construction is complete.

The project is needed to meet the physical fitness needs of the JBA population. The existing West Fitness Center is substandard: it does not have sufficient space to meet the demonstrated need for intramural and basewide sports activities, and it has operational inefficiencies (including poor ventilation, lighting, and electrical systems). Repairs to the facility are frequent and costly and curtail fitness center operations, which further exacerbates the shortage of fitness center facilities. A modern, efficient, well-designed fitness center and health and wellness center is necessary to effectively meet the Air Force Chief of Staff's *Fit to Fight* physical fitness program for military mission readiness, while accommodating new and existing programs in a safe, healthy environment conducive to maintaining health and physical fitness of base personnel and their families. This facility is a key component in developing and caring for our Airmen to ensure that they are properly educated, trained, and equipped.

Constructing a new West Fitness Center would have no effect on floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources.

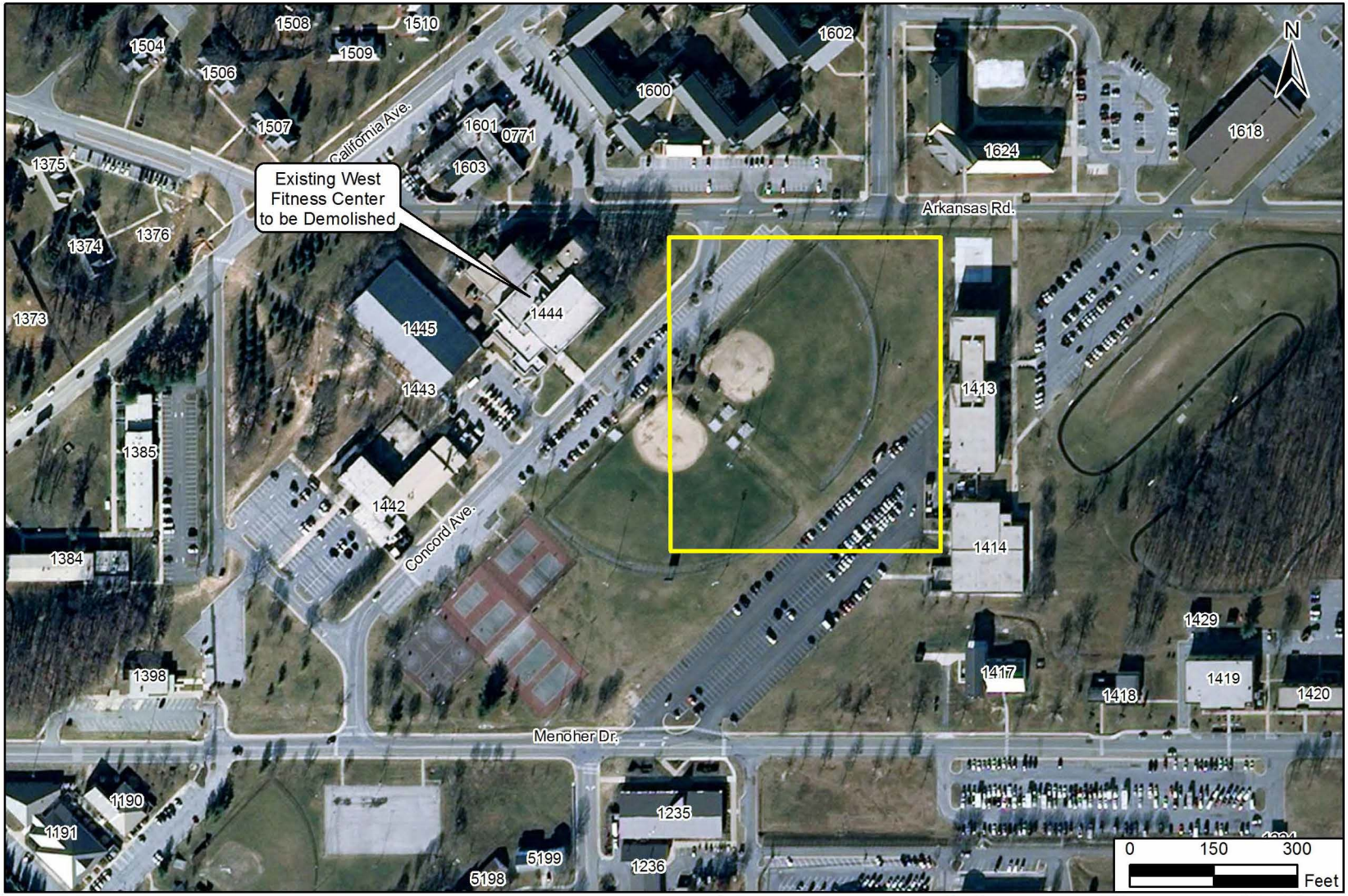
No Action Alternative

The No Action Alternative would consist of not constructing a new West Fitness Center on JBA. Physical conditioning and recreational programs would continue to be limited because of facility shortcomings. Base personnel would continue to use substandard, inefficient, and overcrowded physical fitness facilities, which would adversely affect military fitness and readiness requirements. Current programs would have to be curtailed, and some would be discontinued because of poorly configured and inadequate facilities. Expensive renovations and repairs would have to be made perpetually for the existing fitness center to continue operations. Customers would continue to be inconvenienced, and the problem would become worse as other missions move to JBA. This would adversely affect the overall base mission in addition to morale and retention of highly trained, professional, and qualified Air Force personnel, and the overall base mission.

Alternatives Considered but Eliminated from further Consideration

The Air Force considered continued use of the existing West Fitness Center, but for the reasons noted above, repair and continued use of the existing facility was dismissed as not being a viable option.

The proposed location of the fitness center meets the recommendation in JBA's 2010 General Plan Update, which recommends a Town Center at the center of the base close to military family housing, the dormitory quadrant, the airfield, and the industrial and administrative areas. All known alternative options for a new fitness center were considered in developing the project. Alternative options would have been different from but not better than the Preferred Alternative, and the environmental effects of constructing a fitness center elsewhere in the Town Center Area would be nearly identical to those that would result from constructing it at the selected location.



LEGEND

Proposed Location of
New West Fitness Center

Proposed Location of the Fitness Center

Figure 4

Child Development Center

Proposed Action

Under the proposed action, a modern Child Development Center (CDC) with an area of 41,107 SF and a capacity of 242 children would be constructed in the southern portion of the base near the Virginia Gate between Vermont Road and Youngstown Road to replace the existing CDC #1 (Building 4575) (Figure 5). The new CDC would have a pick-up/drop-off area with entrance canopy, outdoor play area, multipurpose room, utility spaces, utility connections, parking lot, and access. The facility would have space to accommodate the Family Childcare Program. The existing CDC #1 (Building 4575) would be demolished.

The purpose of the project is to meet the child care and child development needs of the JBA population. CDC #1 was constructed in 1943, has multiple rooms that are unusable for various reasons (including mold), and cannot accommodate the waiting list of children (approximately 130 children) or the childcare needs of approximately 3,000 additional Airmen that relocated to JBA as a result of the 2005 Base Realignment and Closure and National Capital Region restructuring. In addition, the facility does not meet the current AT/FP standards. The lack of adequate space in JBA's childcare facilities, which serve approximately 7,500 customers each year and oversee at least 12 on-base childcare providers, forces some service members to enroll their children in off-base CDCs, which are more expensive, less convenient, and potentially of lower quality than services provided at JBA. Off-base child care typically costs $8,400 more than on-base care, which is a severe financial strain on military personnel.

Constructing a new CDC at the selected location would have no effect on floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources.

No Action Alternative

Under the No Action Alternative, a new CDC would not be constructed. Families unable to be accommodated in JBA's child care facilities would continue to use expensive off-base programs or leave their children with unlicensed baby sitters, and the condition of CDC #1 would pose a continued hazard to children's health.

Alternatives Considered but Eliminated from further Consideration

In considering the replacement of CDC #1, the condition and size of CDC #1 were of paramount concern, and repair and continued use of CDC #1 was eliminated as an option. CDC #1 is nearly 70 years old (it was constructed in 1943); it has multiple rooms that are unusable for various reasons, including mold behind some walls; some classrooms do not have required water fountains; it has only a small kitchen with no walk-in freezer, which makes meal preparation difficult; and it has an old heating, ventilation, and air conditioning system that often does not function properly. Options for locating a CDC elsewhere on the base were dismissed from consideration because a CDC near the Virginia Gate serves the JBA population well, and it is in a noise area that is compatible with a CDC.

LEGEND

JBA Boundary

Proposed Location of New CDC

Proposed Location of the Child Development Center

Figure 5

Security Forces Group Complex

Proposed Action

Under the proposed action, a Security Forces Group complex with an area of approximately 82,366 SF would be constructed at the southeast corner of the intersection of Brookley Avenue and D Street (Figure 6). The project is needed to provide an adequately sized and configured multistory Security Forces Group complex that would enable the 11th Security Forces Group to provide effective force protection to JBA, the President of the United States, U.S. senior leaders, and visiting foreign heads of state. Security Forces Group operations at JBA are conducted from two undersized, 1960s-era facilities on opposite sides of the base and two temporary trailers. The Security Forces Group supply facility is in a corner of the base far removed from sensitive areas that require immediate response capability, which results in a 6.1-mile total drive for response actions. Response vehicles have to travel through traffic-congested areas to obtain alert vehicles to respond to security emergencies. The proposed action includes demolition of two buildings (Building 1642—the base library, and Building 1605—a vehicle wash rack) that are on the site proposed for the new complex.

Constructing a Security Forces Group complex at the selected location would have no effect on floodplains, waters of the United States, wetlands, threatened or endangered species, or cultural resources.

No Action Alternative

Under the No Action Alternative, no new Security Forces Complex would be constructed. The 11th Security Forces Group would be unable to provide effective force protection to JBA, the President of the United States, U.S. senior leaders, and visiting foreign heads of state. The facilities—which are physically unable to support the current mission and future growth for modernized command and control equipment, monitoring and surveillance systems, weapons and equipment storage, and critical emergency response for 825 Security Forces personnel—would continue to be used at a detriment to meeting mission requirements.

Alternatives Considered but Eliminated from further Consideration

The JBA General Plan includes an Operations Quadrant Area Development Plan, with the newly built Squadron Operations facility, Building 1658, providing the anchor for further development of operations-related facilities in the Operations Quadrant Area. A close mission relationship exists between the Squadron Operations facility and the consolidated Security Forces Complex. As such, alternative locations for a Security Forces Complex—other than that west of Building 1658—were eliminated from consideration.

LEGEND

Proposed Location of
Security Forces Group Complex

Proposed Location of the Security Forces Group Complex

Figure 6

Facility Removal

Proposed Actions

Separate actions are proposed for demolishing five buildings and removing structures on JBA. The facilities to be demolished are Building 1429 (Generator Building), Building 1679 (Chapel), Building 1732 (West Heat Plant), Building 1988 (Traffic Check House), and Building 3229 (Hazardous Storage area) (see Figure 2). At Building 1685 (a former Army and Air Force Exchange Service [AAFES] gas station) the canopy and fuel tanks would be removed. The table below provides a brief overview of the proposed demolition projects.

Demolition projects under the proposed action

Building number	Proposed action	Purpose	Year proposed	Building size (SF)
1429	Demolish Building 1429 (generator building)	The building is old (constructed in 1955) and no longer used. Cinder block walls are crumbling and deteriorating, posing a potential safety risk.	2013	797
1679	Demolish Building 1679 (chapel)	Building has mold and structural fractures; repair would be too costly.	2013	12,148
1732	Demolish Building 1732 (heat plant) and remove aboveground storage tank	The building is no longer needed (it is a steam electrical plant; steam is no longer used on JBA).	2013	5,514
1988	Demolish Building 1988 (traffic check house)	To be replaced in the same location with a new gate and check house.	2012	141
3229	Demolish Building 3229 (hazardous materials storage area)	The building is old (constructed in the 1960s), is beyond is economical life, and has already been replaced with a new facility.	2013	2,204
1685	Remove AAFES canopy and fuel tanks	Canopy and fuel tanks are being removed because a new gas station is being constructed.	2013	N/A

No Action Alternatives

Under the No Action Alternative, one or more of the facilities listed above would not be removed. Any facility not removed would continue to be used in some capacity (if the condition of the building permits) or closed and minimally maintained indefinitely or until an alternative use could be determined. Using any facility for a subpar purpose would contravene the Air Force's policy to manage its assets effectively and efficiently and would incur ongoing costs for maintenance and security. Space occupied by the facilities would not be available for other, more mission-essential purposes.

Alternatives Considered but Eliminated from further Consideration

No alternatives were identified for the facilities that are to be removed. Reuse of each facility was considered and deemed not feasible for mission purposes and to not be economical; facility removal was determined to be the only viable option.

Gate Modifications (Main, Pearl Harbor, Virginia)

Security enhancements are needed at the Main Gate, Pearl Harbor Gate, and Virginia Gate (see Figure 2). Modifications at the three gates would also relieve congestion at intersections near the gates that operate above their capacity during one of the peak periods. The gates would be modified to address and correct safety and security deficiencies and to address facility requirements set forth in Unified Facilities Criteria (UFC) 4-022-01 (*Security Engineering: Entry Control Facilities/Access Control Points*); the Military Surface Deployment and Distribution Command Transportation Engineering Agency Pamphlet 55-15 (*Traffic and Safety Engineering for Better Entry Control Facilities*); the U.S. Department of Transportation, Federal Highway Administration *Manual on Uniform Traffic Control Devices*; and the American Association of State Highway and Transportation Officials Greenbook (*A Policy on Geometric Design of Highways and Streets*). The entry control facilities for the Main Gate, Pearl Harbor Gate, and Virginia Gate must comply with the standards outlined in the aforementioned documents to provide secure and safe entry facilities for JBA.

Proposed Actions

Additional curvature in the response zones at the gates and improved lane transitions at the gate identification check areas would be constructed at the gates. Wrong-way detection would be installed, manual drop-in bollards would be put in place for lane closure, serpentines (non-crash rated bollards or swing gates) would be installed to force vehicle slow down, and emergency communication devices would be installed.

No Action Alternatives

Under the No Action Alternative, one or more of the three gates would not be modified to address safety and security deficiencies.

Alternatives Considered but Eliminated from further Consideration

Closure and demolition of the existing gates, and total reconstruction to meet safety specifications was determined to be inadvisable because none of the gates require full replacement or relocation; they must be brought up to standards and requirements. For this reason, this option was dismissed from further consideration.

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

CHESAPEAKE BAY ECOLOGICAL SERVICES FIELD OFFICE
177 ADMIRAL COCHRANE DRIVE
ANNAPOLIS, MD 21401
(410) 573-4500

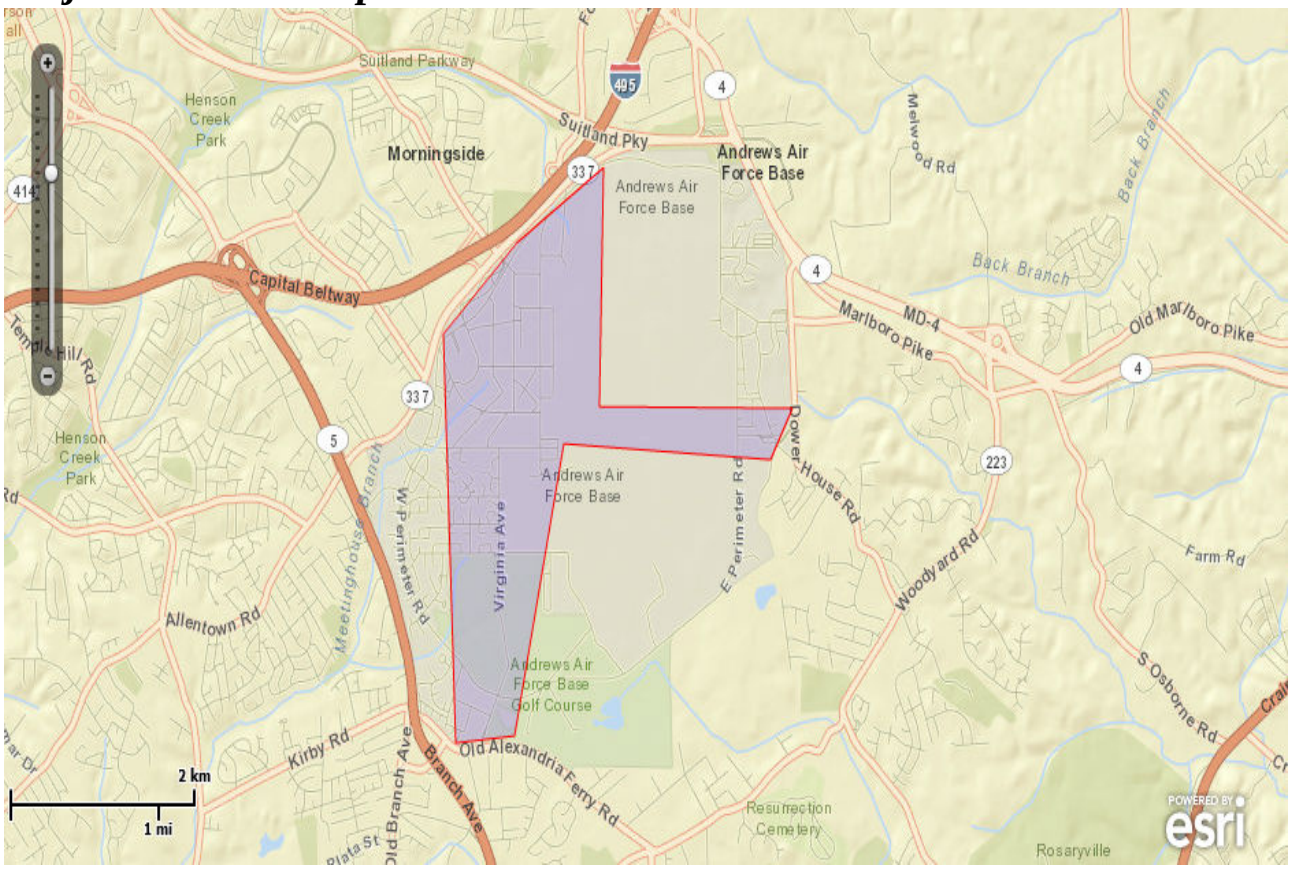
Project Name:

JBA IDEA

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:



Project Counties:

Prince George's, MD

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-76.8730842 38.8275985, -76.8735992 38.8095426, -76.849395 38.8094089, -76.8521416 38.8055296, -76.8780624 38.8067335, -76.8842422 38.7846581, -76.8916237 38.7841229, -76.8931686 38.8150268, -76.8839247 38.8219281, -76.8730842 38.8275985)))

Project Type:

Development

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species List (USFWS Endangered Species Program).

There are no listed species found within the vicinity of your project.

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

The following wetlands intersect your project area:

Wetland Types	NWI Classification Code	Approximate Acres
Freshwater Emergent Wetland	PEM1A	5.542102
Freshwater Pond	PUBHh	0.751121
Freshwater Pond	PUBHh	1.827578

October 24, 2012

Ms. Anne Hodges
Department of the Air Force
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier: MD20121017-0738
Reviewer Comments Due By: October 31, 2012
Project Description: Installation Development Environmental Assessment (IDEA): Implementation of Multiple Projects at Joint Base Andrews-Naval Air Facility
Project Location: County(ies) of Prince George's
Clearinghouse Contact: Linda Janey

Dear Ms. Hodges:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: the Maryland Department(s) of Natural Resources, Transportation, the Environment; and the Maryland Department of Planning; including Maryland Historical Trust. They have been requested to contact your agency directly by **October 31, 2012** with any comments or concerns and to provide a copy of those comments to the State Clearinghouse for Intergovernmental Assistance. Please be assured that after **October 31, 2012** all MIRC requirements will have been met in accordance with Code of Maryland Regulations (COMAR 34.02.01.04-.06). The project has been assigned a unique State Application Identifier that should be used on all documents and correspondence.

A "Project Status Form" has been enclosed and should be completed and returned after you receive notice that your project was approved or not approved.

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at ljaney@mdp.state.md.us. Thank you for your cooperation with the MIRC process.

Sincerely,

Linda C. Janey

Linda C. Janey, J.D., Assistant Secretary

P.S. ***Great News!!*** *Your project may be eligible to be "FastTracked" through the State permitting processes. For more information, go to: http://easy.maryland.gov/wordpress/fasttrack/ .*

LCJ:LJ
Enclosure(s)
cc: Greg Golden - DNR
Melinda Gretsinger - MDOT
Amanda Degen - MDE
Peter Conrad - MDPL
Beth Cole - MHT
12-0738_NDC.NEW2.doc

PROJECT STATUS FORM

Please complete this form and return it to the State Clearinghouse upon receipt of notification that the project has been approved or not approved by the approving authority.

TO: **Maryland State Clearinghouse**
Maryland Department of Planning
301 West Preston Street
Room 1104
Baltimore, MD 21201-2305

DATE: _____
(Please fill in the date form completed)

FROM: _____
(Name of person completing this form.)

PHONE: ____-____-_____
(Area Code & Phone number)

RE: **State Application Identifier:** **MD20121017-0738**
Project Description: Installation Development Environmental Assessment (IDEA): Implementation of Multiple Projects at Joint Base Andrews-Naval Air Facility

PROJECT APPROVAL		
This project/plan was: ☐ **Approved**	☐ **Approved with Modification**	☐ **Disapproved**
Name of Approving Authority:		**Date Approved:**

FUNDING APPROVAL			
The funding (if applicable) has been approved for the period of: _____, 201____ **to** _____, 201____ **as follows:**			
Federal $: _____	**Local $:** _____	**State $:** _____	**Other $:** _____

OTHER
☐ **Further comment or explanation is attached**

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, Maryland 21230
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

October 31, 2012

Ms. Anna Hodges
Department of the Air Force
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, Maryland 20762

RE: State Application Identifier: MD20121017-0738
Project: Installation Development Environmental Assessment (IDEA): Implementation of Multiple Projects at Joint Base Andrews-Naval Air Facility

Dear Ms. Hodges:

Thank you for the opportunity to review the above referenced project. The document was circulated throughout the Maryland Department of the Environment (MDE) for review, and the following comments are offered for your consideration.

1. If boilers or other equipment capable of producing emissions are installed as a result of this project, the applicant is requested to obtain a permit to construct from MDE's Air and Radiation Management Administration for this equipment, unless the applicant determines that a permit for this equipment is not required under State regulations pertaining to "Permits, Approvals, and Registration" (COMAR 26.11.02.). A review for toxic air pollutants should be performed. Please contact the New Source Permits Division, Air and Radiation Management Administration at (410) 537-3230 to learn about the State's requirements and the permitting processes for such devices.

2. If a project receives federal funding, approvals and/or permits, and will be located in a nonattainment area or maintenance area for ozone or carbon monoxide, the applicant should determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact James Wilkinson, Air and Radiation Management Administration, at (410) 537-3245 for further information regarding threshold limits.

3. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

4. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.

rec'd 11/13/12
postmark 10/31/12

5. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.

6. The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.

7. Any contract specifying "lead paint abatement" must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1950 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

Please see the enclosure for additional comments provided by the Science Services Administration.

Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

Amanda R. Degen
MDE Clearinghouse Coordinator
Office of Communications

Enclosure
cc: Linda Janey, State Clearinghouse

Draft IDEA: Multiple Projects Joint Base Andrews

Maryland Department of the Environment - Science Services Administration

REVIEW FINDING: R2 Contingent Upon Certain Actions (MD2012 1017-0738)

The following additional comments are intended to alert interested parties to issues regarding water quality standards. The comments address:

A. Water Quality Impairments: Section 303(d) of the federal Clean Water Act requires the State to identify impaired waters and establish Total Maximum Daily Loads (TMDLs) for the substances causing the impairments. A TMDL is the maximum amount of a substance that can be assimilated by a waterbody such that it still meets water quality standards.

Planners should be aware of existing water quality impairments identified on Maryland's 303(d) list. The Projects are situated in the several watersheds, identified by the MD 8-digit codes: Piscataway Creek (02140203), Western Branch (02131103) Potomac River Upper Tidal (02140201), which are currently impaired by several substances and subject to regulations regarding the Clean Water Act.

Planners may find a list of nearby impaired waters by entering the 8-digit basin code into an on-line database linked to the following URL: http://www.mde.state.md.us/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx.

This list is updated every even calendar year. Planners should review this list periodically to help ensure that local decisions consider water quality protection and restoration needs. **Briefly, the current impairments that are relevant to the Project include the following:**

Piscataway Creek (02140203):

Nutrients:	**Tidal. A TMDL is pending development.**
Sediments:	**Tidal. A TMDL is pending development.**
Bacteria:	**Non-tidal. A TMDL has been written and approved by EPA.**
Biological:	**Non-tidal. A TMDL is pending development.**

Potomac River U tidal (02140201)

Nutrients:	**Tidal. A TMDL is pending development.**
Toxics:	**Tidal. A TMDL for PCBs has been written and approved by EPA.**
Sediments:	**Tidal. A TMDL is pending development.**
Biological:	**Tidal and Non-tidal. A TMDL is pending development.**

ADDITIONAL COMMENTS

Antidegradation

Table 1: General Comments regarding Current Antidegradation Implementation Procedures.

For all land disturbing projects that do not implement a no-discharge alternative and therefore may adversely impact Tier II waters, MDE will require:	
1.	MDE approval of all design elements and practices required by mandatory implementation of Environmental Site Design (ESD) to the maximum extent practicable and applicable innovative development practices as currently required by COMAR 26.08.02.04-1(K)(2) and the 2007 Stormwater manual (see, http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Pages/Programs/WaterPrograms/SedimentandStormwater/swm2007.aspx). MDE is also recommending ESD be employed for projects that are individually of minimal impact to Tier II resources, to account for the total cumulative effects of each project. Current precedents for this requirement/recommendation can be found in Appendix 1 to these comments).
2.	Mandatory Riparian buffers determined in consideration of slope and soil type, with a minimum of 100 ft in all areas. Buffer requirements are based on similar requirements in the Critical Areas Program and the Chesapeake Bay Riparian Buffer/Reforestation Goals and other water quality objectives). Additional buffers beyond the minimum 100' will be required on sites with slopes greater than 5% and/or with poorly infiltrating soils. See Appendix 2 for guidance.
3.	*Biological, chemical, and flow monitoring in the Tier II watershed by the applicant to determine remaining AC and any cumulative impacts of current and future developments for larger projects and/or in watersheds with little remaining forest buffering/AC.
4.	Additional practices to protect the Tier II watershed may also be required, such as enhanced sediment and erosion control practices, depending on the potential for project-specific impacts to water quality
Where 1 and 2 above cannot be fully implemented	Applicant is required to submit a detailed hydrologic study and alternatives analysis to demonstrate assimilative capacity will be maintained. If it is determined by MDE assimilative capacity still will not be maintained after the above analysis, an SEJ will be required.

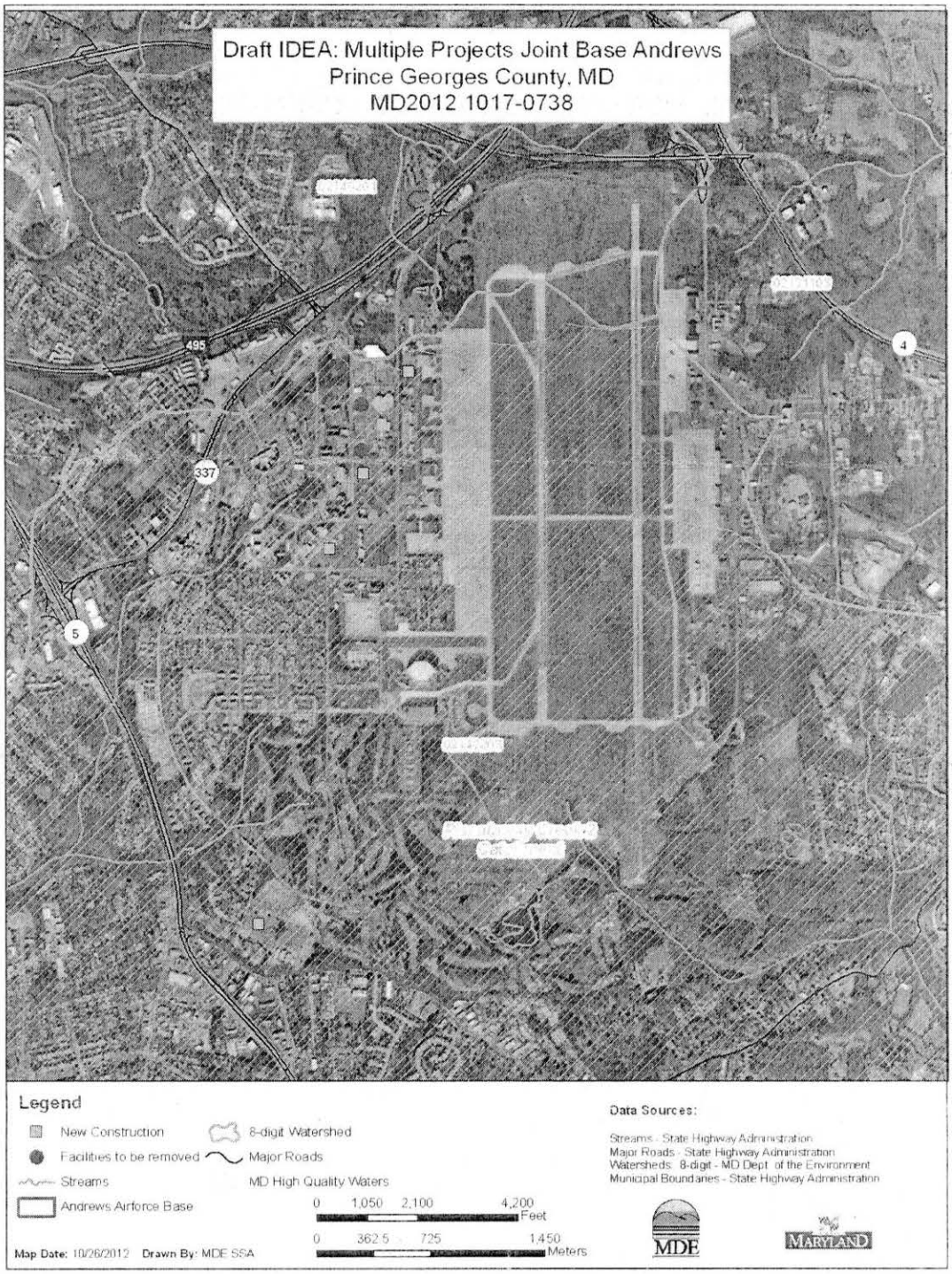
Also, ESD is now being required for Program Open Space and School Construction projects. See http://www.bpw.state.md.us/static_files/advisories/2009-1.pdf

Appendix 2

Maryland riparian buffering requirements in Tier II watersheds developed from modified USDA Forest Service recommendations*.

Adjusted Average Optimal Buffer Width Key for HQ Waters (minimum width 100 feet)				
	Slopes			
Soils	0-5%	5-15%	15-25%	>25%
ab	100	130	160	190
c	120	150	180	210
d	140	170	200	230

*Johnson, C. W. and Buffler, S. 2008. Riparian buffer design guidelines for water quality and wildlife habitat functions on agricultural landscapes in the Intermountain West, Gen. Tech. Rep. RMRS-GTR-203. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Also Available at http://www.fs.fed.us/rm/pubs/rmrs_gtr203.pdf


Draft IDEA: Multiple Projects Joint Base Andrews
Prince Georges County, MD
MD2012 1017-0738
495
337
5
4
Legend
New Construction
Facilities to be removed
Streams
Andrews Airforce Base
8-digit Watershed
Major Roads
MD High Quality Waters
0 1,050 2,100 4,200 Feet
0 362.5 725 1,450 Meters
Map Date: 10/26/2012 Drawn By: MDE SSA
Data Sources:
Streams - State Highway Administration
Major Roads - State Highway Administration
Watersheds: 8-digit - MD Dept. of the Environment
Municipal Boundaries - State Highway Administration
MDE
MARYLAND

Maryland Department of Planning
Maryland Historical Trust

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Richard Eberhart Hall
Secretary

Matthew J. Power
Deputy Secretary

November 20, 2012

Anne Hodges
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

Re: Multiple (11) Projects at Joint Base Andrews
Naval Air Facility Washington, Maryland
MD20121017-0738
Historic Preservation Review

Dear Ms. Hodges:

Thank you for contacting the Maryland Historical Trust (Trust), the State's Historic Preservation Office, regarding the undertakings at Joint Base Andrews. We have reviewed the project information in accordance with Section 106 of the National Historic Preservation Act and we are writing to provide our comments regarding effects on historic properties.

Based upon our review of the undertakings, we have determined the following:

No historic properties are affected by these undertakings:

- Helicopter Operations Facility
- Child Development Center
- Demolition of Building 1429
- Removal of AAFES canopy and fuel tanks

The Maryland Inventory of Historic Properties does not contain any information about the history or condition of the following buildings. Depending on the significance and integrity of the buildings they may be eligible for listing in the National Register of Historic Places. Since these buildings will be affected by the proposed undertakings, they should be evaluated for National Register eligibility pursuant to provision 36 CFR part 800.4. The Trust should be provided with a Determination of Eligibility (DOE) form for each building type. This information will allow us to help identify historic properties that might be affected by the undertaking and begin assessing the possible effects of the project on them for the following buildings:

- Building 1679 - demolition
- Building 1732 - demolition
- Building 1988 - demolition
- Building 3229 - demolition
- Building 1642 and 1605 - demolition
- Buildings 1444, 1413 and 1414 which may be impacted by the construction of the new fitness center

DOE forms must contain sufficient description of buildings, structures, areas of land use, and the overall landscape of a property to evaluate its significance under National Register Criterion C and its historic integrity. This should include

information about feature age, form, stylistic elements, methods of construction, materials, and condition. Forms must also contain sufficient historical context to evaluate a property under National Register Criteria A and B. This should include information derived from historic maps and land records; examination of the existing buildings, structures, and landscape as historical sources; and relevant information from existing reports and other secondary sources. All DOE forms must be completed by a qualified architectural historian, preservationist, or historian and be accompanied by supporting materials as described in *General Guidelines for Compliance-Generated Determinations of Eligibility* and *Standards and Guidelines for Architectural and Historical Investigations in Maryland* (found on the Trust's website) *http://mht.maryland.gov/documents/PDF/Compliance_guidelines_DOE_May_2009.pdf*.

Finally the Trust attempts to review all submittals in a timely manner and with the available information, there are times in which we are unable to provide informed comments to the responsible agency without the following basic information, some or all of which was not included with the original submittal for the Gate Modification (Main, Pearl Harbor and Virginia) undertaking.

- Photographs (print or digital) of the project site
- Site plans, other drawings, and\or a detailed written scope of work illustrating the proposed project and a description.

Thank you for providing us this opportunity to comment. Submitting this additional information will allow the Trust to continue our review and provide our comments to you. If you should have any questions regarding Section 106 review, please contact me at aapple@mdp.state.md.us or 410-514-7636.

Sincerely,

Amanda R. Apple
Preservation Officer, Project Review & Compliance
Maryland Historical Trust

ARA/ 201205053-63

From: Hart, Carlton [mailto:carlton.hart@ncpc.gov]
Sent: Thursday, October 25, 2012 8:20 AM
To: Hodges, Anne M CIV USAF AFDW 11 CES/CEAO
Subject: EXTERNAL: IDEA scoping comments

Anne,

The scoping comments that I am submitting in response to the Installation Development Environmental Assessment (IDEA) for Joint Base Andrews are listed below. This IDEA scope is a good summary document that describes the projects that are to be constructed at Joint Base Andrews in the near future.

Helicopter Operations Facility
This placement would remove some trees, please indicate the Joint Base Andrews tree replacement policy and whether these trees will be replaced.

West Fitness Center
What happens to the existing ball fields that appear on the photo? Also please provide more information on what happens to the parking areas that will be disturbed.

Also, the EA should include a discussion of how EISA and EO 13514 will be addressed for each of these projects.

Sincerely,

Carlton E. Hart, AICP
Urban Planner

Urban Design and Plan Review
National Capital Planning Commission
401 9th Street, NW Suite 500
Washington, DC 20004
Direct: 202-482-7252
Main: 202-482-7200
www.ncpc.gov <http://www.ncpc.gov>

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Office of the Planning Director
Prince George's County Planning Department

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772
TTY: (301) 952-4366
www.mncppc.org/pgco
301-952-3595
D12-101501

November 16, 2012

Ms. Anne Hodges
Environmental Planner
Joint Base Andrews Naval Air Facility
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

RE: Multiple Projects at Joint Base Andrews-Naval Air Facility Washington, Maryland

Dear Ms. Hodges:

The Prince George's County Planning Department appreciates the opportunity to comment on the proposed action and site map for multiple projects at Joint Base Andrews-Naval Air Facility Washington, Maryland. The Prince George's County Planning Department has reviewed these proposals and offers the following comments:

As a federal facility, Joint Base Andrews (JBA) is not specifically governed by the 2002 *Prince George's County Approved General Plan*, which recommends development patterns based on tiers and focused on pedestrian and transit-oriented centers and corridors. Joint Base Andrews operates under its own 2010 General Plan Update, which proposes developing a Town Center as a pedestrian oriented central hub for community activities. The JBA General Plan also creates an Operation Quadrant that clusters operation related facilities. Both the county and JBA will be strengthened by good connections and access between the JBA Town Center and the county's centers.

Joint Base Andrews is within the area of the 1994 *Melwood/Westphalia Approved Master Plan and Sectional Map Amendment*. This plan identifies the positive and negative impacts of Joint Base Andrews, including noise and accident potential, and recommends certain regulations to address these issues. Recommendations also include encouraging traffic management at major employment areas and site planning that reduces the impact on environmental features.

Proposed Developments on Joint Base Andrews

- **Helicopter Operations Facility** is consistent with the General Plan principles of compact employment areas.

- **West Fitness Center** is consistent with the 2002 General Plan Development Pattern policies for the Developing Tier.

- **Child Development Center** is outside of the high noise areas and accident potential zones that were identified in 2009 Joint Land Use Study (JLUS). The new center is located off of a smaller internal street than the current center, one that requires an immediate left turn after entering the Virginia Gate. Given the additional students and the circulation from the Virginia Gate, it is recommended that traffic be monitored at this location to avoid adversely affecting nearby public roads. The proposed gate modifications may alleviate these issues.

- **Security Forces Group Complex** is consistent with the 2002 General Plan Development Pattern policies for the Developing Tier.

- **Gate Modifications** are considered part of the traffic management measures at major employment centers recommended in the General Plan and sector plans in this area.

The proposed changes will, for the most part, not have an adverse impact on the adjacent transportation network. The overall trip impact on the public roads beyond the borders of Joint Base Andrews will remain largely unchanged.

None of the projects listed above will disturb any woodlands; wetlands; waters of the U.S.; or rare, threatened, and endangered (RTE) species. In addition, the proposed projects do not include any impact to any cultural or historic resources within Prince George's County. JBA includes two properties designated as Prince George's County historic sites: 77-001-Forest Grove Methodist Church and Cemetery (Chapel 2), and 77-014-Belle Chance and Cemetery. Neither of these properties will be affected by the proposed demolition or construction projects.

Thank you again for allowing us the opportunity to comment on these proposed projects. If you should have any additional questions or need additional information, please contact Raymond Dubicki, Jr. in the Community Planning South Division at 301-952-3521 or at Raymond.Dubicki@ppd.mncppc.org.

Sincerely,

Fern Piret

Fern Piret
Planning Director

c: Ivy Lewis, Chief, Countywide Planning Division
Derick Berlage, Chief, Countywide Planning Division
Raymond Dubicki, Jr., Planner Coordinator, Community Planning South Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

November 7, 2012

Ms. Anne Hodges
Department of the Air Force
Headquarters 11th Wing (AFDW)
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

Re: Description of Proposed Action and Site Map for Multiple Projects at Joint Base Andrews-Naval Air Facility in Washington, Maryland

Dear Ms. Hodges:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency has reviewed the Description of Proposed Action and Site Map for Multiple Projects at Joint Base Andrews-Naval Air Facility in Washington, Maryland.

Joint Base Andrews is preparing an Installation Development Environmental Assessment (IDEA) for implementation of multiple projects at Joint Base Andrews-Naval Air Facility, Washington, MD. Under the proposed actions, the Air Force would undertake up to six construction projects (entailing demolition of four existing structures), remove six facilities, and make modifications to three gates at Joint Base Andrews (JBA). Constructions projects would include: 1) Helicopter Operations Facility, 2) West Fitness Center, 3) Child Development Center, 4) Security Forces Group Complex.

EPA has provided comments in the Technical Comments document which is enclosed for your review and consideration for preparation of the proposed Environmental Assessment. If you have questions regarding these comments, the staff contact for this project is Karen DelGrosso; she can be reached at 215-814-2765.

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Enclosure

Technical Comments

Proposed Action/Land Use

Page 1, Actions Proposed in the IDEA and Alternatives, states that six construction projects would be undertaken. However, only four new construction projects are discussed and depicted on Figure 2, Locations of Actions Proposed in the IDEA. Please explain discrepancy.

The project area should be described in detail and quantified, specifying the type and acreage of land impacted as well as a description of the existing buildings on the site including their use. In addition, it is important to describe the area surrounding the proposed project sites. The neighboring areas and activities is important so as to assess impacts on the proposed action(s); in particular, the Child Development Center.

In the case where fields, parking lots or open space are within the study area of the proposed construction project sites, provide detailed information of how the existing area would be impacted (i.e. kind and acreage of trees removed, etc.). In reference to the new West Fitness Center proposed for the location identified in Figure 4, where soccer fields now exist. Please explain if the entire soccer fields will be eliminated and discuss the impact that this may have on the community. Also, page 6 states, "The existing West Fitness Center is substandard: it does not have sufficient space to meet the demonstrated need for intramural and basewide sports activities, and it has operational inefficiencies (including poor ventilation, lighting, and electrical systems)." Does the need for intramural and basewide sports activities include the need for fields? If so, will the new location for the fitness center result in the removal of needed fields?

The Security Forces Group Complex, page 10, states, "The proposed action includes demolition of two buildings (Building 1642—the base library, and Building 1605—a vehicle wash rack) that are on the site proposed for the new complex." Figure 6 depicts Building 1605 outside of the Proposed Location of the Security Forces Group Complex. Is the Proposed Location for the Security Forces Group Complex to include Building 1605? Please address this discrepancy and/or correct Figure 6. Also, please discuss any chemicals used for the wash rack (if any) and whether soil and/or water testing is necessary/proposed.

Discuss any permits required before commencement of the project. This may include a Section 404/Section 10 permit from the Corps of Engineers, state water quality certification, and local construction and zoning permits.

Low Impact Development

Federal agencies are required to reduce the impacts on watershed hydrology and aquatic resources. This effort commonly referred to as low impact development (LID), implements environmentally and economically beneficial landscape practices into landscape programs, policies and practices by using a natural approach to land development and stormwater management. Federal agencies are required by Executive Order 13148 to incorporate the

principles put forth in a Guidance dated August 10, 1995. This Guidance is intended to promote principles of "sustainable landscape design and management" which recognizes the interconnection of natural resources, human resources, site design, building design, energy management, water supply, waste prevention, and facility maintenance and operation.

It is important to incorporate LID efforts to mitigate the effects of development through traditional stormwater management practices which have proven to not be entirely successful. Traditional collection and conveyance systems, stormwater ponds and other stormwater facilities do not replicate natural systems, which greatly slow water before it reaches streams, wetlands and other waters. Development often times results in the loss of trees and other vegetation, the compaction of soils by heavy equipment, and the creation of vast stretches of connected impervious areas. These combined factors are extremely difficult to compensate for using traditional practices. As a result, the following site design (goals) and planning practices can be used to minimize stormwater impacts.

Goal: Minimize direct stormwater impacts to streams and wetlands to the maximum extent practicable.

Practices:

1. Locate stormwater facilities outside of streams and wetlands;
2. maintain natural drainage routes on site;
3. preserve riparian buffers; and
4. distribute "Integrated Management Practices" (IMP) used in lieu of centralized ponds.

Goal: Preserve the natural cover on as much of the site as possible, especially for areas located on hydrologic soil groups (HSG) A and B.

Practices:

1. Utilize clustered development designs and preserve a significant portion of the site in a natural state;
2. utilize "fingerprint" clearing by limiting the clearing and grading of forests and native vegetation to the minimum area needed for the construction of the lots, the provision of necessary access, and fire protection;
3. avoid impacts to wetlands to vegetated riparian buffers; and
4. preserve A and B Soils in natural cover.

Goal: Minimize the overall impervious cover.

Practices:

1. Utilize the minimum required width for streets and roads;
2. utilize street layouts that reduce the number of homes per unit length;
3. minimize cul-de-sac diameters, use doughnut cul-de-sacs, or use alternative turnarounds;
4. minimize excess parking space construction, utilize pervious pavers in low-use parking areas;

5. utilize structured or shared parking;
6. reduce home setbacks and frontages;
7. where permitted, minimize sidewalk construction by utilizing sidewalks on one side only, utilizing "Skinny" sidewalks, or substituting sidewalks with pervious trails through common greenspace;
8. substitute pervious surfaces for impervious wherever possible;
9. where permitted, avoid the use of curb and gutter and utilize vegetated open swales, preferably "engineered swales" with a permeable soil base; and
10. minimize compaction of the landscape and in areas where soils will be "disked" prior to seeding, and amended with loam or sand to increase absorption capacity.

Goal: Locate infiltration practices on HSG A and B soils wherever possible. Thus, every effort should be made to utilize areas with these soils for IMP that promote infiltration.

Goal: Locate impervious areas on less permeable soils (HSG C and D). Placement of impervious areas on lower permeability soils minimizes the potential loss of infiltration/recharge capacity on the site.

Goal: "Disconnect" impervious areas. "Disconnecting" means having impervious cover drain to pervious cover (i.e. downspouts draining to the yard, not the driveway). This decreases both the runoff volume and Time of Concentration.

Goal: Increase the travel time of water off of the site (Time of Concentration).
Practices:

1. Flatten grades for stormwater conveyance to the minimum sufficient to allow positive drainage;
2. increase the travel time in vegetated swales by using more circuitous flow routes, rougher vegetation in swales, and check dams; and
3. utilize "engineered" swales in lieu of pipes or hardened channels.

Goal: Utilize soil management/enhancement techniques to increase soil absorption.
Practices:

1. Delineate soils on site for the preservation of infiltration capacity; and
2. require compacted soils in areas receiving sheetflow runoff (such as yards, downslope of downspouts).

Goal: Revegetate all cleared and graded areas.

Goal: Use "engineered swales" for conveyance in lieu of curb and gutter wherever possible.

Goal: Utilize level spreading of flow into natural open space.

For additional and more comprehensive LID information, please refer to the following web sites.

LID Manuals:

- http://www.epa.gov/owow/nps/lid_hydr.pdf
- http://www.epa.gov/owow/nps/lid/lidnatl.pdf
- http://www.bmpdatabase.org
- http://www.epa.gov/ednnrmrl/
- Combined Sewer Overflows Guidance for Monitoring and Modeling Document Type, Published: 1/1/99 http://www.epa.gov/npdes/pubs/chap05-sco.pdf

EO 13514 --Federal Leadership in Environmental, Energy, and Economic Performance

Page 1 states, "In addition, the design of construction projects would be consistent with the requirements laid out in EO 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*. EPA appreciates adherence to EO 13423; however, it is important to note that a more recent and subsequent EO should be addressed.

Specifically, Executive Order (EO) 13514 *Federal Leadership in Environmental, Energy, and Economic Performance* was signed on October 5, 2009. The purpose of EO 13514 is "to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions (GHG) a priority for Federal agencies." The EO does not rescind/eliminate the requirements of EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*. Instead, it expands on the energy reduction and environmental performance requirements for Federal agencies identified in EO 13423. EO 13514 sets numerous Federal energy requirements in several areas, including:

- Accountability and Transparency
- Strategic Sustainability Performance Planning
- Greenhouse Gas Management
- Sustainable Buildings and Communities
- Water Efficiency
- Electronic Products and Services
- Fleet and Transportation Management
- Pollution Prevention and Waste Reduction

The summary below is intended as a reference only. Please refer to the full text of EO 13514 for specific numerical and non-numerical targets for Federal agencies to reach and show how project planning incorporates EO 13514 requirements, where applicable.

Accountability and Transparency

EO 13514 accountability, transparency, and reporting requirements include:

- Within 30 days, Federal agency heads must designate a senior management official to serve as Senior Sustainability Officer accountable for agency conformance. The Senior Sustainability Officer designation must be reported to the Chair of the Council on Environmental Quality (CEQ) and the Director of the Office of Management and Budget (OMB). The Senior Sustainability Officer shall:
  - Prepare targets for agency-wide reductions in 2020 for greenhouse gas (GHG) emissions.
  - Within 240 days, prepare and submit a multi-year Strategic Sustainability Performance Plan to the Chair of the Council on Environmental Quality (CEQ) and the Director of the Office of Management and Budget (OMB) for review and approval.
- Agency efforts and outcomes in implementing EO 13514 must be transparent and disclosed on publicly available Federal Web sites.
- OMB must prepare scorecards providing periodic evaluation of Federal agency performance. Scorecard results must be published on a publicly available Web site.
- The CEQ Chair must ensure that Federal agencies are held accountable for conforming to the requirements of EO 13514.
- Agency heads shall decide that this order applies in whole or in part with respect to the activities, personnel, resources, and facilities of the agency not located within the U.S. if determined that such application is in the interest of the U.S.
- Agency heads may submit to the President, through the CEQ Chair, an exemption request covering an agency activity and related personnel, resources, and facilities.
- The Director of National Intelligence may exempt an intelligence activity and related personnel, resources, and facilities when in the interest of national security.
- To the maximum extent practical and without compromising national security, each agency shall strive to comply with the purposes, goals, and implementation steps of EO 13514.

Strategic Sustainability Performance Planning

Federal agencies are required to develop, implement, and annually update a Strategic Sustainability Performance Plan that prioritizes agency actions based on life-cycle return on investment. Between fiscal years 2011 and 2021, each plan shall:

- Include a policy statement committing the agency to comply with environmental and energy statutes, regulations, and executive orders.
- Achieve established sustainability goals and targets, including greenhouse gas reduction targets.
- Be integrated within each agency's strategic planning and budgeting process.

- Identify agency activities, policies, plans, procedures, and practices relevant to the implementation of EO 13514 and, where necessary, provide for development and implementation of new or revised policies, plans, procedures, and practices.
- Identify specific agency goals, schedules, milestones, and approaches for achieving results and quantifiable metrics required by EO 13514.
- Outline planned actions to provide information about agency progress, performance, and results on a publicly available Federal Web site.

- Incorporate actions for achieving progress metrics identified by the CEQ Chair and OMB Director.
- Evaluate agency climate change risks and vulnerabilities to manage the effects of climate change on the agency's operations and mission in both the short and long term.
- Consider environmental measures as well as economic benefits, social benefits, and costs in evaluating projects and activities based on life-cycle return on investment.
- Annually identify opportunities for improvement and evaluate past performance to extend or expand projects that have net benefits as well as reassess or discontinue under-performing projects.

The CEQ Chair and OMB Director are responsible for reviewing and approving each agency's multi-year strategic sustainability performance plan.
A list of all Strategic Sustainability Plans for each agency is available on the OMB Web site.

Greenhouse Gas Management
Greenhouse gas management is imperative within E.O. 13514. Each Federal agency must:

- Within 90 days, establish and report to the CEQ Chair and OMB Director a fiscal year 2020 percentage reduction target of agency-wide scope 1 and scope 2 GHG emissions in absolute terms relative to a fiscal year 2008 baseline.
  - In establishing the target, agencies shall consider reductions associated with:
    - Reducing agency building energy intensity.
    - Increasing agency renewable energy use and on-site projects.
    - Reducing agency use of fossil fuels by:
      - Using low GHG emitting and alternative fuel vehicles.
      - Optimizing vehicle numbers across agency fleets.
      - Reducing petroleum consumption in agency fleets of 20 or more 2% annually through fiscal year 2020 relative to a fiscal year 2005 baseline.
  - Where appropriate, this target shall exclude direct emissions from excluded vehicles and equipment as well as electric power produced and sold commercially to other parties in the course of regular business.
- Within 240 days, establish and report to the CEQ Chair and OMB Director a fiscal year 2020 percentage reduction target for agency-wide scope 3 GHG emissions in absolute terms relative to a fiscal year 2008 baseline.
  - In establishing the target, agencies shall consider reductions associated with:
    - Pursuing opportunities with vendors and contractors to address and incentivize GHG emission reductions.
    - Implementing strategies and accommodations for transit, travel, training, and conferences that actively reduce carbon emissions associated with commuting and travel by agency staff.
    - Meeting greenhouse gas emissions reductions associated with other Federal Government sustainability goals.

    - Implementing innovative policies and practices that address agency-specific scope 3 GHG emissions.
- Within 15 months, establish and report to the CEQ Chair and OMB Director a comprehensive inventory of absolute GHG emissions across all three scopes for fiscal year 2010. Comprehensive inventories shall be submitted annually thereafter at the end of each January.

Sustainable Buildings and Communities

Federal agencies must enhance efforts towards sustainable buildings and communities. Specific requirements include:

- Implement high performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction by:
    - Ensuring all new Federal buildings, entering the design phase in 2020 or later, are designed to achieve zero net energy by 2030.
    - Ensuring all new construction, major renovations, or repair or alteration of Federal buildings comply with the Guiding Principles of Federal Leadership in High Performance and Sustainable Buildings.
    - Ensuring at least 15% of existing agency buildings and leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress towards 100% compliance across its building inventory.
    - Pursuing cost-effective, innovative strategies (e.g., highly-reflective and vegetated roofs) to minimize consumption of energy, water, and materials.
    - Managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing asset deferred maintenance costs.
    - When adding assets to agency building inventories, identifying opportunities to:
        - Consolidate and eliminate existing assets.
        - Optimize the performance of portfolio property.
        - Reduce associated environmental impacts.
    - Ensuring rehabilitation of Federally-owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the building.
- Advance regional and local integrated planning by:
    - Participating in regional transportation planning and recognizing existing community transportation infrastructure.
    - Aligning Federal policies to increase the effectiveness of local planning for energy choices such as locally-generated renewable energy.
    - Ensuring that planning for new Federal facilities and leases consider sites that are pedestrian friendly, near existing employment centers, and accessible to public transport; and emphasize existing central cities and, in rural communities, existing or planned town centers.

- Identify and analyze impacts from energy usage and alternative energy sources in all environmental impact statements and environmental assessments for proposals covering new or expanded Federal facilities under the amended National Environmental Policy Act (NEPA) of 1969.

Water Efficiency
Federal agencies must improve water efficiency and management by:

- Reducing potable water consumption intensity 2% annually through fiscal year 2020, or 26% by the end of fiscal year 2020, relative to a fiscal year 2007 baseline.
- Reducing agency industrial, landscaping, and agricultural water consumption 2% annually, or 20% by the end of fiscal year 2020, relative to a fiscal year 2010 baseline.
- Identifying, promoting, and implementing water reuse strategies consistent with state law that reduce potable water consumption.

Electronic Products and Services
EO 13514 includes product efficiency and stewardship. Federal agencies must:

- Ensure 95% of new contract actions, task orders, and delivery orders for products and services (excluding weapon systems) are energy efficient (ENERGY STAR® or FEMP-designated), water efficient, bio-based, environmentally preferable (Electronic Product Environmental Assessment Tool (EPEAT) certified), non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives where such products and services meet agency performance requirements.
- Implement best management practices for the energy-efficient management of servers and Federal data centers.

Fleet and Transportation Management
EO 13514 requires Federal agencies to consider fleet and transportation management during greenhouse gas inventory and mitigation processes. Specific details are outlined in the Greenhouse Gas Management section of this page.

Pollution Prevention and Waste Reduction
E.O. 13514 includes the following pollution prevention and waste reduction requirements for Federal agencies:

- Minimize the generation of waste and pollutants through source reduction.
- Decrease agency use of chemicals where such decrease will assist the agency in achieving greenhouse gas reduction targets.
- Divert at least 50% of non-hazardous solid waste by the end of fiscal year 2013.
- Reduce printing paper use and acquiring uncoated printing and writing paper containing at least 30% post-consumer fiber.
- Increase the diversion of compostable and organic material from the waste stream.

Pollution Prevention

In addition to the pollution prevention information above, it is important to note that in October 1990, Congress passed the Pollution Prevention Action which calls for a stepwise approach to addressing pollution: 1. Prevention or source reduction; 2. Recycling of material in an environmentally safe manner; 3. Treatment in an environmentally safe manner; and as a last resort; 4. Disposal or other release of pollution into the environment. The following principles are applicable with the proposed construction and possible renovation projects.

- Paved Surfaces/Parking Areas. To prevent runoff from newly developed areas from eroding steep areas, good environmental design should be employed to minimize and control runoff. Detention basins or paving with permeable asphalt or crushed stone may be appropriate where applicable.

- Landscaping. EPA suggests (where appropriate) that the grounds be landscaped with hardy native plant species to cut down on watering and lessen the need for pesticides and fertilizers. Liberal and judicious use of trees can help to reduce heating and cooling costs and act as air purifiers.

- Recycling. To promote the recycling of refuse generated by employees, recycling receptacles should be provided on the grounds and within office buildings. Procurement of recycled goods is also necessary and helps to stimulate markets. As a consumer and purchaser of goods and services, Fort Belvoir is encouraged to make purchasing decisions with this in mind.

- Painting/Carpeting. All painting projects should make use of non-toxic paints, stains, exterior preservatives, and chemical-free carpeting. This can reduce long-term costs for removal of potential hazardous materials and provide better air quality.

- Water conservation. In an effort to conserve water consumption, low-flow toilets should be installed in new and renovated buildings. To ensure adequate supply and quality of water, monitoring of the water table and chemical testing of the water should be conducted.

- Energy Conservation. Energy-efficient heating and cooling systems, proper building insulation, and the use of energy-efficient lighting can be incorporated in the design of renovated facilities to reduce cumulative impacts of energy consumption and encourage energy conservation. For example, take advantage of natural ventilation as well as using compact fluorescent lamps which consume considerable less electricity than do incandescent ones and last much longer. Install energy efficient windows and doors (for example, reflective glass).

Miscellaneous

Page 4, Alternatives Considered but Eliminated from further Consideration, states "Various configurations were considered for the site near Hangar 1, and ultimately the option shown in Figure 1 was selected." In case the language in this document may be used for the EA, the correct figure referenced should be Figure 3.

Comments of the Maryland-National Capital Park and Planning Commission

The commission noted in its comments that the proposed changes will, for the most part, not have an adverse impact on the adjacent transportation network; that none of the projects will disturb any woodlands; wetlands; waters of the U.S.; or rare, threatened, and endangered (RTE) species; and that the proposed projects do not include any impact to any cultural or historic resources within Prince George's County. The commission noted that the proposed projects are, for the most part, consistent with the General Plan principles and development pattern policies. The new Child Development Center, the commission noted, is off of a smaller internal street than the current center, and requires an immediate left turn after entering the Virginia Gate. Given the additional students and the circulation from the Virginia Gate, the commission recommended that traffic be monitored at this location to avoid adversely affecting nearby public roads, but that the proposed gate modifications may alleviate these issues.

Response: Although it is the Child Development Center near the Virginia Gate is to be replaced, it is uncertain through which gate the additional children enrolled at the center will enter. If substantial additional traffic enters after the new center is open, or if the immediate left turn to access the center causes traffic issues, then JBA will assess the situation to determine a solution.

Comments of the Maryland Department of Planning, Maryland Historical Trust

The Maryland Historical Trust (Trust) indicated that no historic properties are affected by undertaking construction of the Helicopter Operations Facility and the Child Development Center, demolition of Building 1429, and removal of AAFES canopy and fuel tanks. It also noted that the Maryland Inventory of Historic Properties does not contain any information about the history or condition of Buildings 1679, 1732, 1988, 3229, 1642, and 1605; or Buildings 1444, 1413, and 1414, which could be impacted by the construction of the new fitness center. The Trust noted that because these buildings will be affected by the proposed undertakings, they should be evaluated for National Register eligibility pursuant to provision 36 CFR Part 800.4, and that the Trust should be provided with a Determination of Eligibility (DOE) form for each building type.

Response: JBA acknowledges the lack of information in the Maryland Inventory of Historic Properties for the buildings noted by the Trust, and will prepare DOE forms for each building and submit them to the Trust before any construction-related impacts to the buildings occurs.

Comments of the Maryland Department of the Environment

The Maryland Department of the Environment (MDE) noted the following in its comments.

- If boilers or other equipment capable of producing emissions are installed as a result of this project, the applicant is requested to obtain a permit to construct from MDE's Air and Radiation Management Administration.
- Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations.
- For projects that involve demolition, any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed.
- Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible.
- The Waste Diversion and Utilization Program should he contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations.

- Any contract specifying "lead paint abatement" must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services.

The Maryland Department of the Environment - Science Services Administration noted that the Projects are in several watersheds, including those of Piscataway Creek, Western Branch, Potomac River Upper Tidal, that are impaired by several substances and subject to regulations regarding the Clean Water Act.

Response: JBA will comply with all regulatory requirements concerning air quality, storage tank installation and removal, solid waste disposal, and hazardous materials and wastes, and will strictly follow stormwater management and control guidelines and regulations both during and after construction to ensure that none of the projects causes an impact to impaired waters.

Comments of the National Capital Planning Commission

The National Capital Planning Commission (NCPC) noted that the Helicopter Operations Facility construction project would remove some trees, and requested that the EA indicate what the JBA tree replacement policy is and whether the trees will be replaced.

Response: The EA notes (Section 3,9.2.1) that JBA would comply with regulations concerning the conservation and preservation of trees as described in the Maryland Forest Conservation Act of 1991 and the Prince George's County Woodland Conservation and Tree Preservation Ordinance, and in accordance with the requirements in the JBA Integrated Natural Resources Management Plan (INRMP). The INRMP provides details on JBA's tree replacement policy:

> Trees removed must be replaced according to the following: (1) for removal of canopy areas of less than one (1) acre, trees shall be replanted for each tree removed according to a 1 to 1 ratio; (2) for the removal of canopy areas greater than one (1) acres, trees shall be replanted to replace a minimum of 60 percent of the canopy cover removed; and (3) all replacement trees must be native species, 2 to 5 inch caliper, replace prior to removal (where applicable), and arranged in stands similar to those removed. All planting and maintenance activities in the 11 planting areas shall be in accordance with the Andrews AFB Arbor Plan and Maryland DNR. The trees and shrubs that will be used for each planting area are native tree and shrubs species.

NCPC questioned with respect to the West Fitness Center what would happen to the existing ball fields that would be removed by the construction, and it asked for more information on what would happen to the parking areas that will be disturbed by the construction.

Response: The EA notes (Section 3.12.2.1) that while there could be a temporary loss of recreational fields from the construction of a new fitness center and a new CDC, there are plans to replace them with fields in a centralized area of the base. When future replacement of the fields will occur has not been determined.

NCPC also requested that the EA include a discussion of how EISA and EO 13514 will be addressed for each of these projects.

Response: The EA addresses EISA and EO 13514 in Section 3.5.1.5, Section 3.5.2.1, and Section 3.13.2.1.

Comments of the U.S. Environmental Protection Agency, Region III

Page 1, Actions Proposed in the IDEA and Alternatives, states that six construction projects would be undertaken. However, only four new construction projects are discussed and depicted on Figure 2, Locations of Actions Proposed in the IDEA. Please explain discrepancy.

Response: The presentation of the projects and their classification as new construction, demolition, etc., was confusing and this has been addressed in revisions to the document.

The project area should be described in detail and quantified, specifying the type and acreage of land impacted as well as a description of the existing buildings on the site including their use. In addition, it is important to describe the area surrounding the proposed project sites. The neighboring areas and activities is important so as to assess impacts on the proposed action(s); in particular, the Child Development Center.

Response: Detailed descriptions of the project areas are provided in relevant discussions in Section 3 of the EA.

In the case where fields, parking lots or open space are within the study area of the proposed construction project sites, provide detailed information of how the existing area would be impacted (i.e. kind and acreage of trees removed, etc.).

Response: Impacts of the proposed actions are discussed in Section 3 of the EA.

In reference to the new West Fitness Center proposed for the location identified in Figure 4, where soccer fields now exist. Please explain if the entire soccer fields will be eliminated and discuss the impact that this may have on the community.

Response: The EA notes (Section 3.12.2.1) that while there could be a temporary loss of recreational fields from the construction of a new fitness center and a new CDC, there are plans to replace them with fields in a centralized area of the base. When future replacement of the fields will occur has not been determined.

The Security Forces Group Complex, page 10, states, "The proposed action includes demolition of two buildings (Building 1642—the base library, and Building 1605—a vehicle wash rack) that are on the site proposed for the new complex." Figure 6 depicts Building 1605 outside of the Proposed Location of the Security Forces Group Complex. Is the Proposed Location for the Security Forces Group Complex to include Building 1605? Please address this discrepancy and/or correct Figure 6. Also, please discuss any chemicals used for the wash rack (if any) and whether soil and/or water testing is necessary/proposed.

Response: The figure depicting the proposed location of the Security Forces Group complex has been corrected to encompass a larger area that includes both Building 1642 and 1605. Any discussion of chemical use at the wash racks and soil or water testing that would be necessary is in Section 3 of the EA.

Discuss any permits required before commencement of the project. This may include a Section 404/Section 10 permit from the Corps of Engineers, state water quality certification, and local construction and zoning permits.

Response: Permits anticipated to be required for the projects are discussed in Section 3 of the EA.

EPA noted that federal agencies are required to reduce the impacts on watershed hydrology and aquatic resources through the use of sustainable landscape design and management and low impact development practices. EPA noted that it is important to incorporate such practices into construction designs to minimize the impacts of development.

Response: JBA will incorporate sustainable and low-impact development practices into designs for all new facilities, as discussed in Section 3.5.1.5 of the EA.

EPA noted that EO 13514 Federal Leadership in Environmental, Energy, and Economic Performance expands on the energy reduction and environmental performance requirements for Federal agencies identified in EO 13423, and provided details on the Federal energy requirements in several areas set by EO 13514.

Response: EO 13514 is also discussed in Section 3.5.1.5 of the EA.

February 28, 2013

Ms. Anne Hodges
Department of the Air Force
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762-4803

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier: **MD20130222-0104**
Reviewer Comments Due By: March 20, 2013
Project Description: Environmental Assessment of Installation Development (IDEA) at Joint Base Andrews-Naval Air Facility Washington, Maryland: To Improve its Operational Efficiency by Implementing a Program of Targeted Demolition and Construction
Project Location: Prince George's County
Clearinghouse Contact: Sophia Richardson

Dear Ms. Hodges:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: the Maryland Department(s) of Natural Resources, the Environment, Transportation; the County(ies) of Prince George's; the Regional Agency(ies) of National Capital Planning Commission, Maryland-National Capital Park and Planning Commission in Prince George's; and the Maryland Department of Planning; including Maryland Historical Trust. They have been requested to contact your agency directly by **March 20, 2013** with any comments or concerns and to provide a copy of those comments to the State Clearinghouse for Intergovernmental Assistance. Please be assured that after **March 20, 2013** all MIRC requirements will have been met in accordance with Code of Maryland Regulations (COMAR 34.02.01.04-.06). The project has been assigned a unique State Application Identifier that should be used on all documents and correspondence.

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at srichardson@mdp.state.md.us. Thank you for your cooperation with the MIRC process.

Sincerely,

Linda C. Janey

Linda C. Janey, J.D., Assistant Secretary

P.S. ***Great News!!*** *Your project may be eligible to be "FastTracked" through the State permitting processes. For more information, go to: http://easy.maryland.gov/wordpress/fasttrack/ .*

LCJ:SR
cc: Greg Golden – DNR Amanda Degen – MDE Melinda Gretsinger – MDOT Beverly Warfield – PGEO Christine Saum - NCPC
Jay Mangalvedhe – MNCPPCP Peter Conrad – MDPL Beth Cole – MHT *13-0104_NDC.NEW2.doc*

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, Maryland 21230
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D
Secretary

March 14, 2013

Ms. Anne Hodges
Department of the Air Force
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762-4803

RE: State Application Identifier: MD20130222-0104
Project: Environmental Assessment of Installation Development (IDEA) at Joint Base Andrews-Naval Air Facility Washington, Maryland: To Improve its Operational Efficiency by Implementing a Program of Targeted Demolition and Construction

Dear Ms.Hodges:

Thank you for the opportunity to review the above referenced project. The document was circulated throughout the Maryland Department of the Environment (MDE) for review, and the following comments are offered for your consideration.

1. If the applicant suspects that asbestos is present in any portion of the structure that will be renovated/demolished, then the applicant should contact the Community Environmental Services Program, Air and Radiation Management Administration at (410) 537-3215 to learn about the State's requirements for asbestos handling.

2. Construction, renovation and/or demolition of buildings and roadways must be performed in conformance with State regulations pertaining to "Particulate Matter from Materials Handling and Construction" (COMAR 26.11.06.03D), requiring that during any construction and/or demolition work, reasonable precaution must be taken to prevent particulate matter, such as fugitive dust, from becoming airborne.

3. If boilers or other equipment capable of producing emissions are installed as a result of this project, the applicant is requested to obtain a permit to construct from MDE's Air and Radiation Management Administration for this equipment, unless the applicant determines that a permit for this equipment is not required under State regulations pertaining to "Permits, Approvals, and Registration" (COMAR 26.11.02.). A review for toxic air pollutants should be performed. Please contact the New Source Permits Division, Air and Radiation Management Administration at (410) 537-3230 to learn about the State's requirements and the permitting processes for such devices.

4. If soil contamination is present, a permit for soil remediation is required from MDE's Air and Radiation Management Administration. Please contact the New Source Permits Division, Air and Radiation Management Administration at (410) 537-3230 to learn about the State's requirements for these permits.

5. If any project can be considered regionally significant, such as a shopping mall, a sports arena, industrial complex, or an office complex, the project may need to be identified to the regional Metropolitan Planning Organization (MPO). Project managers who need a permit to connect their projects to a State or federal highway should contact the Planning Division of the Planning and Monitoring Program, Air and Radiation Management Administration, at (410) 537-3240 for further guidance.

6. If a project receives federal funding, approvals and/or permits, and will be located in a nonattainment area or maintenance area for ozone or carbon monoxide, the applicant should determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact James Wilkinson, Air and Radiation Management Administration, at (410) 537-3245 for further information regarding threshold limits.

7. Fossil fuel fired power plants emit large quantities of sulfur oxide and nitrogen oxides, which cause acid rain. In addition, nitrogen oxide emissions contribute to the problem of global warming and also combine with volatile organic compounds to form smog. The MDE supports energy conservation, which reduces the demand for electricity and therefore, reduces overall emissions of harmful air pollutants. For these reasons, MDE recommends that the builders use energy efficient lighting, computers, insulation and any other energy efficient equipment. Contact the U.S. EPA at (202) 233-9120 to learn more about the voluntary Green Lights Program which encourages businesses to install energy-efficient lighting systems.

8. The applicant should be advised that no cutback asphalt should be used during the months of June, July and August.

9. Development should be concentrated in suitable areas such as existing or planned population centers as identified in a county's comprehensive plan.

10. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

11. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.

12. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.

13. The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.

14. Any contract specifying "lead paint abatement" must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1950 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

15. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please contact the Land Restoration Program at (410) 537-3437.

16. In addition, information from MDE's Science Services Administration is enclosed.

Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

Amanda R. Degen
MDE Clearinghouse Coordinator
Office of Communications

cc: Sophia Richardson, State Clearinghouse

IDEA: Program for Demo and Construction at Joint Base Andrews

Maryland Department of the Environment - Science Services Administration

REVIEW FINDING: R2 Contingent Upon Certain Actions (MD2013 0222-0104)

The following additional comments are intended to alert interested parties to issues regarding water quality standards. The comments address:

A. Water Quality Impairments: Section 303(d) of the federal Clean Water Act requires the State to identify impaired waters and establish Total Maximum Daily Loads (TMDLs) for the substances causing the impairments. A TMDL is the maximum amount of a substance that can be assimilated by a waterbody such that it still meets water quality standards.

Planners should be aware of existing water quality impairments identified on Maryland's 303(d) list. The Projects are situated in several watersheds identified by the MD 8-digit codes: (Piscataway Creek, 02140203; Potomac River U tidal, 02140201; Western Branch, 02131103), which are currently impaired by several substances and subject to regulations regarding the Clean Water Act.

Planners may find a list of nearby impaired waters by entering the 8-digit basin code into an on-line database linked to the following URL: http://www.mde.state.md.us/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx.

This list is updated every even calendar year. Planners should review this list periodically to help ensure that local decisions consider water quality protection and restoration needs. **Briefly, the current impairments that are relevant to the Project include the following:**

Potomac River U tidal (02140201)

Nutrients:	**Tidal. A TMDL has been written and approved by EPA. (Bay TMDL)**
Toxics:	**Tidal. A TMDL for PCBs has been written and approved by EPA.**
Sediments:	**Tidal. A TMDL has been written and approved by EPA. (Bay TMDL)**
Biological:	**Tidal and Non-tidal. A TMDL is pending development.**

Piscataway Creek (02140203):

Nutrients:	**Tidal. A TMDL is pending development.**
Sediments:	**Tidal. A TMDL is pending development.**
Bacteria:	**Non-tidal. A TMDL has been written and approved by EPA.**
Biological:	**Non-tidal. A TMDL is pending development.**

Western Branch (02131103)

BOD:	**Tidal. A TMDL has been written and approved by EPA.**
Sediments:	**Tidal. A TMDL has been written and approved by EPA. (Bay TMDL)**
Biological:	**Non-tidal. A TMDL is pending development.**

B. TMDLs: Development and implementation of any Plan should take into account consistency with TMDLs developed for the impaired waterbodies referenced above. Decisions made prior to the development of a TMDL should strive to ensure no net increase of impairing substances. TMDLs are made available on an updated basis at the following web site: http://www.mde.state.md.us/programs/Water/TMDL/CurrentStatus/Pages/Programs/WaterPrograms/TMDL/Sumittals/index.aspx

Special protections for high-quality waters in the local vicinity, which are identified pursuant to Maryland's anti-degradation policy;

C. Anti-degradation of Water Quality: Maryland requires special protections for waters of very high quality (Tier II waters). The policies and procedures that govern these special waters are commonly called "anti-degradation policies." This policy states that "proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts." These permitted annual discharges are not just traditional Point Sources, it can include all discharges such as Stormwater.

Piscataway Creek 1, which is located within the scope of the Project, has been designated as a Tier II stream. The location of the project is within the catchment of the High Quality Water (Tier II segment). (See Additional Comments and attached map)

For more information regarding any disturbances (i.e. Construction) within a Tier II Catchment contact Angel Valdez at 410-537-3606.

Planners should be aware of legal obligations related to Tier II waters described in the Code of Maryland Regulations (COMAR) 26.08.02.04 with respect to current and future land use plans. Information on Tier II waters can be obtained online at: http://www.dsd.state.md.us/comar/getfile.aspx?file=26.08.02.04.htm and policy implementation procedures are located at http://www.dsd.state.md.us/comar/getfile.aspx?file=26.08.02.04-1.htm

Planners should also note that since the Code of Maryland Regulations is subject to periodic updates. A list of Tier II waters pending Departmental listing in COMAR can be found, with a discussion and maps for each county, at the following website: http://www.mde.state.md.us/programs/researchcenter/EnvironmentalData/Pages/researchcenter/data/waterqualitystandards/antidegradation/index.aspx

ADDITIONAL COMMENTS

Antidegradation

Table 1: General Comments regarding Current Antidegradation Implementation Procedures.

For all land disturbing projects that do not implement a no-discharge alternative and therefore may adversely impact Tier II waters, MDE will require:	
1.	MDE approval of all design elements and practices required by mandatory implementation of Environmental Site Design (ESD) to the maximum extent practicable and applicable innovative development practices as currently required by COMAR 26.08.02.04-1(K)(2) and the 2007 Stormwater manual (see, http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Pages/Programs/WaterPrograms/SedimentandStormwater/swm2007.aspx). MDE is also recommending ESD be employed for projects that are individually of minimal impact to Tier II resources, to account for the total cumulative effects of each project. Current precedents for this requirement/recommendation can be found in Appendix 1 to these comments).
2.	Mandatory Riparian buffers determined in consideration of slope and soil type, with a minimum of 100 ft in all areas. Buffer requirements are based on similar requirements in the Critical Areas Program and the Chesapeake Bay Riparian Buffer/Reforestation Goals and other water quality objectives). Additional buffers beyond the minimum 100' will be required on sites with slopes greater than 5% and/or with poorly infiltrating soils. See Appendix 2 for guidance.
3.	*Biological, chemical, and flow monitoring in the Tier II watershed by the applicant to determine remaining AC and any cumulative impacts of current and future developments for larger projects and/or in watersheds with little remaining forest buffering/AC.
4.	Additional practices to protect the Tier II watershed may also be required, such as enhanced sediment and erosion control practices, depending on the potential for project-specific impacts to water quality
Where 1 and 2 above cannot be fully implemented	Applicant is required to submit a detailed hydrologic study and alternatives analysis to demonstrate assimilative capacity will be maintained. If it is determined by MDE assimilative capacity still will not be maintained after the above analysis, an SEJ will be required.

Appendix 1

Anticipation

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
MDE 410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Sheri T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary

JUN - 8 2009

The Honorable Julia W. Gouge, President
Board of County Commissioners
Carroll County, Maryland
County Office Building
Room 300
225 North Center Street
Westminster MD 21157

Dear Commissioner Gouge:

The Maryland Department of the Environment (MDE) has completed a final review of the **Fall 2008 Amendment Cycle** (Cycle) to the 2007 Carroll County Water and Sewerage Plan. The Cycle consists of five amendments. Three amendments involve Hampstead: annexations Nos. 30 [Summit Street/Taylor Street] and No. 32 [Crockett Property]; and, the Hampstead Industrial Exchange, Solo Cup Lot 2, & IDA Property. For the other two amendments, one is for the Liberty Road Crossing Multi-Use water and wastewater systems -- for a proposed business center near Taylorsville; and, the final amendment is for the New Windsor Agriculture Easement Properties.

During MDE's review of the Cycle, the Maryland Department of Planning (MDP) advised MDE that the Cycle is consistent with the Carroll County Comprehensive Plan (enclosed comments). You may recall that MDE had expressed water resource concerns for the three Hampstead amendments and for the Liberty Road Crossing amendment, and needed more time to complete a review of these four amendments. The review period, set to expire on March 10, 2009, was extended until June 8, 2009. The amendment for the New Windsor Agriculture Easement Properties was approved by MDE in my enclosed March 3, 2009 letter to you.

For the three Hampstead amendments, MDE's Water Supply Program (WSP) is concerned that proposed growth may exceed the Town's water supply capacity (enclosed comments). In an effort to assist Hampstead to strengthen its water supply, a new water appropriation permit has been issued by MDE. While this important action may be considered to be a short term benefit, concerns remain as to the viability of the water supply for future growth.

The Department requests that Hampstead prepare a water capacity management plan and forward it to the WSP for review by December 31, 2009. By copy of this letter, representatives of Hampstead are advised to contact the WSP by calling 410-537-3702. The Hampstead amendments are approved with the condition that water resource issues remain which may impact future growth.

Recycled Paper www.mde.state.md.us TTY Users 1-800-735-2258 via Maryland Relay Service

For the Liberty Road Crossing amendment, MDE's Science Services Administration (SSA) has performed a screening analysis for potential impacts to the Tier II watershed above the Gillis Falls I Tier II segment. The SSA advises that their analysis indicates no probable impacts due to the size, location, and nature of the development relative to both the Tier II segment and the watershed's assimilative capacity. The SSA has determined that this project will not require further anti-degradation review.

The Department requests that the County implement environmental site design (ESD) to the maximum extent practicable for Liberty Road Crossing to minimize any potential water quality impacts associated with storm water runoff generated from impervious or other hard surfaces. Since the development is more than 150 meters from the closest stream channel, the Department has no current cause for concern regarding project impacts to riparian buffers. Implementing ESD now will help protect the watershed from any cumulative impacts associated with this and future development activities.

By copy of this letter, representatives of 2515 Liberty, LLC and the County may contact the SSA by calling 410-537-3572 to discuss the analysis, and, for specific questions regarding MDE's Sediment, Stormwater, and Dam Safety program (SSDS) and ESD, please call 410-537-3561. The Liberty Road Crossing amendment is approved.

This action completes MDE's review of the Cycle, as required by Section 9-507 of the Environment Article of the Annotated Code of Maryland. If you need further assistance on these matters, please contact Virginia F. Kearney, Deputy Director at 410-537-3512, toll-free at 800-633-6101 or by e-mail at vkearney@mde.state.md.us.

Sincerely,

Virginia F. Kearney for

Jay G. Sakai, Director
Water Management Administration

Enclosures

Appendix 2

Maryland riparian buffering requirements in Tier II watersheds developed from modified USDA Forest Service recommendations*.

Adjusted Average Optimal Buffer Width Key for HQ Waters (minimum width 100 feet)				
	Slopes			
Soils	0-5%	5-15%	15-25%	>25%
ab	100	130	160	190
c	120	150	180	210
d	140	170	200	230

*Johnson, C. W. and Buffler, S. 2008. Riparian buffer design guidelines for water quality and wildlife habitat functions on agricultural landscapes in the Intermountain West, Gen. Tech. Rep. RMRS-GTR-203. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Also Available at http://www.fs.fed.us/rm/pubs/rmrs_gtr203.pdf

Chesapeake Bay TMDL

With the completion of the Chesapeake Bay TMDL, the Chesapeake Bay Program Office (CBPO) will be able to provide loading data at a more refined scale than in the past. MDE will be able to use the CBPO data to estimate pollution allocations at the jurisdictional level (which will include Federal Facilities) to provide allocations to the Facilities. These allocations, both Wasteload (WLA) and Load Allocation (LA) could call for a reduction in both Point Sources and Nonpoint Sources. **Facilities should be aware of reductions and associated implementation required by WIPs or FIPs.**

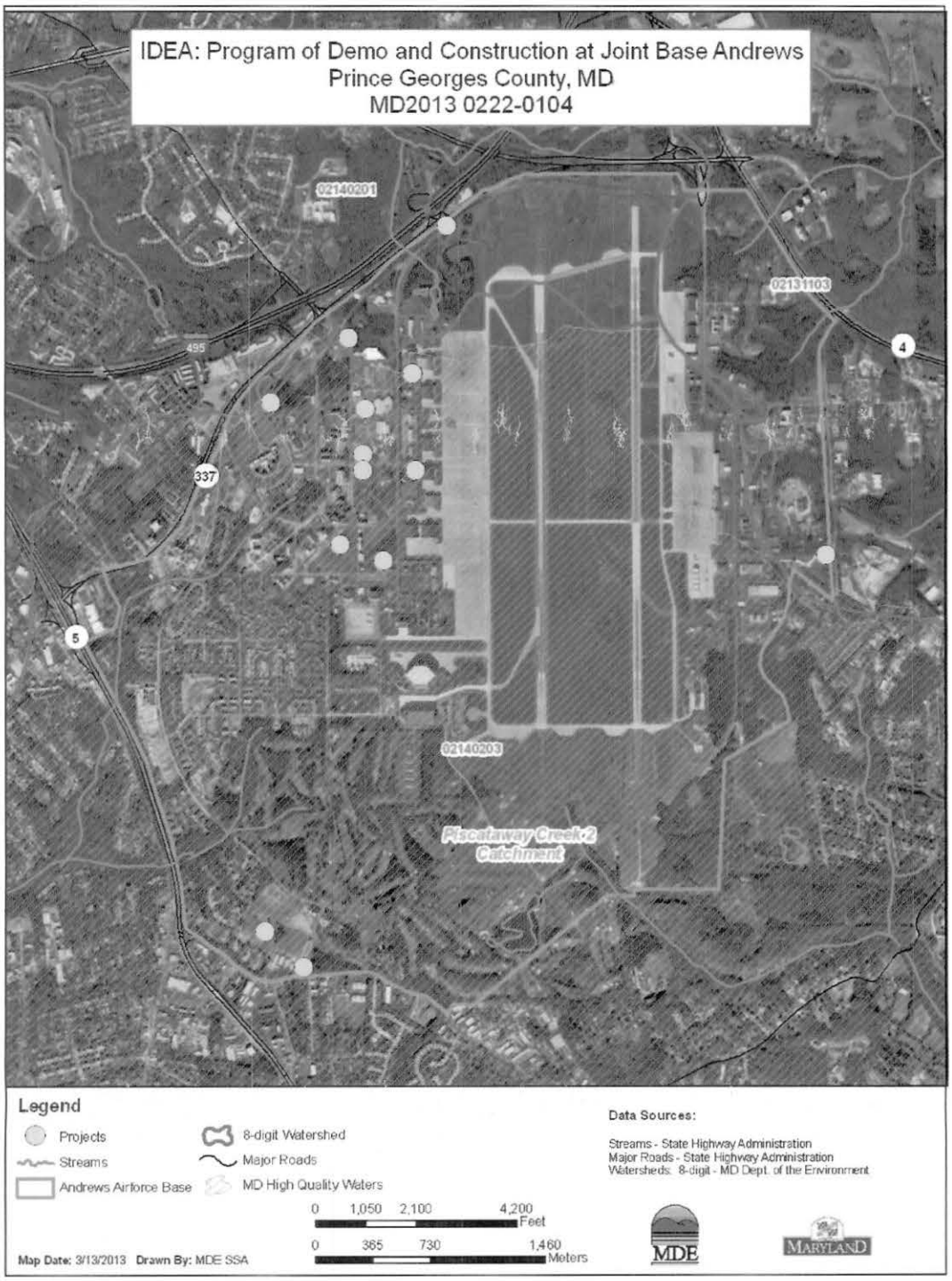
Stormwater

The project should consider all Maryland Stormwater Management Controls. Site Designs should consider all Environmental Site Design to the Maximum Extent Practicable and "Green Building" Alternatives. Designs that reduce impervious surface and BMPs that increase runoff infiltration are highly encouraged.

Further Information:
http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Pages/Programs/WaterPrograms/SedimentandStormwater/swm2007.aspx

Environmental Site Design (Chapter 5):
http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/chapter5.pdf

Redevelopment Regulations:
http://www.dsd.state.md.us/comar/comarhtml/26/26.17.02.05.htm


IDEA: Program of Demo and Construction at Joint Base Andrews
Prince Georges County, MD
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Piscataway Creek-2
Catchment
Legend
Projects
Streams
Andrews Airforce Base
8-digit Watershed
Major Roads
MD High Quality Waters
0 1,050 2,100 4,200 Feet
0 365 730 1,460 Meters
Map Date: 3/13/2013 Drawn By: MDE SSA
Data Sources:
Streams - State Highway Administration
Major Roads - State Highway Administration
Watersheds: 8-digit - MD Dept. of the Environment
MDE
MARYLAND

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

March 25, 2013

Ms. Anne Hodges
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762-4803

Re: Installation Development Draft Environmental Assessment at Joint Base Andrews-Naval Air Facility Washington, Prince George's County, Maryland

Dear Ms. Hodges:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40CFR 1500-1508), the U.S. Environmental Protection Agency has reviewed the Draft Environmental Assessment (EA) for the Installation Development at Joint Base Andrews-Naval Air Facility Washington (JBA), Prince George's County in Maryland.

JBA has proposed a number of projects for the purpose of increasing operational efficiencies by demolition, construction, and modification of facilities that have been identified as representing a high life-cycle cost (including repair and maintenance), or that are insufficient to meet current or projected mission requirements. The proposed projects are needed to help the United States Air Force (USAF) and JBA accommodate mission increases, better meet mission requirements, and provide modern facilities that are adequate to support Base personnel and their families.

The proposed activities are: 1) Construction of a Helicopter Operations Facility (HOF), Fitness Center, Child Development Center (CDC), Security Forces Group Complex, a new traffic check house, parking lot enlargement; 2) Demolition of Buildings 1444 (West Fitness Center), 4575 (CDC #1), 1642 (Base Library), 1605 (vehicle wash rack), 1988 (traffic check house), 1429 (generator building), 1679 (Chapel 3), 1732 (heat plant), the canopy and fuel tanks at Building 1685 (a former Army and Air Force Exchange Service gas station); 3) Modification of three entry control facilities (Main Gate, Pearl Harbor Gate, and Virginia Gate).

EPA has provided comments and questions for your consideration in the Technical Comments document which is enclosed. EPA requests additional information to assess the impacts to the environment and natural resources. Specific comments address concerns with noise, hazardous materials, soil and groundwater contamination, water resources and vegetation.

Thank you for the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Karen DelGrosso; she can be reached at 215-814-2765.

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Enclosure (1)

Technical Comments

Noise

Page 1-4 states, "The proposed action for the Helicopter Operations Facility (HOF) is to construct a new facility to accommodate the 1st Helicopter Squadron (1HS) and 811th Operational Support Squadron (811OSS). The purpose of the proposed action is to provide adequate space for the current mission and for a known future mission increase of approximately 200 percent." The IHS and 811OSS are housed in various facilities at JBA and no existing facility would be demolished in association with constructing a HOF.

Because the HOF is projected to increase operations by 200 percent, please discuss the types of operations to be conducted and whether this considerable increase would have detrimental impacts on noise. It appears as if the EA evaluates noise as it relates to construction only. In fact, Figure 3-1 indicates noise impacts based on construction by project year. A noise analysis resulting from full operation should be presented in the Final EA. Impacts to the nearby noise sensitive areas (in the case of the HOP, residential areas) should be assessed. Please state whether impacted residential areas were made aware of the potential increase in noise that may result from future operations. EPA is aware that the Notice of Availability of the draft EA and draft FONSI were published in newspapers. However, direct involvement with the community in ways most appropriate to them ensures awareness and opportunity to participate meaningfully.

In addition, as noted on page 3-5, the HOF would be within the 65 dB DNL noise contour which would require the facility to need noise level reduction measures built into the design of the facility. Discuss the degree of attenuation to be achieved with reduction measures versus without. It would also be helpful to state the proposed activity level/frequency of the IHS and the 811OSS and discuss activity and noise as it relates to resources in the immediate area.

EPA recently reviewed another EA for JBA for the Replacement of Taxiway Sierra, Taxiway Whiskey, Pad 12, and Pad 13. The purpose and need for the project is to conform to U.S. Air Force and federal standards and airfield design criteria in order to accommodate large, modern aircraft, as well as replacing deteriorating infrastructure. The Final EA should address the cumulative impact of noise on JBA and surrounding areas for full operation of both proposed projects, including information on types of operations/activity level. Again, the EA only addressed noise in relation to construction impacts. A noise analysis addressing operational impacts from the proposed HOF and taxiway/replacements to assess cumulative effects on JBA and surrounding communities is essential to the environmental evaluation.

Hazardous Materials

Page 2-9 states, "The Security Forces Group Complex would have a Base Defense Operations Center, battle staff room, armory, guard mount area, mobility storage area, supply/logistics section, vehicle section, weapons cleaning area, command area, operations area, quality control and stardards evaluation area, control center, training area, and detention area."

Briefly describe the activities conducted within the Security Forces Group Complex. Of particular interest, is the weapons cleaning area and any hazardous materials generated or used in the cleaning process as well as safety measures implemented in handling and processing. Also, describe the type of training conducted in the training area and any special requirements needed for safety as it relates to both human health and environmental resources.

Soil and Groundwater Contamination

Page 3-26 states with regards to the Child Development Center Replacement, "A potential environmental concern area is a formal military housing area that used USTs to store heating oil, which is adjacent to the southern parcel boundary (JBA updated)." The EA states that "Leaking USTs were investigated by collecting soil and groundwater samples." What were the results of the samples collected? A report of the findings should be included in the Final EA. Using the sample results, discuss whether the area could still be a concern for the proposed Child Development Center.

Page 3-26 states in reference to the Building 1845 Parking Lot Addition, "Soil contamination from a former heating oil tank on the site might be present on the parcel." It is assumed that the area will be assessed prior to work on the parking lot. Particularly, since it is stated on page 3-27, "All ACM and LBP in buildings proposed for demolition and contaminated soil would be handled in accordance with JBA environmental standards." However, this statement references contaminated soil that could be encountered where USTs and ASTs were removed or near ERP sites. Since the parking lot addition is an area in which a formal heating oil tank once contaminated the area, please confirm if this area will be assessed for soil contamination.

Water Resources

Page 3-19 states, "The projects would support JBA in meeting the requirements of EO 13508 by implementing projects that would improve water quality in streams draining to the Chesapeake Bay." EPA appreciates that "...JBA or its contractors would prepare a sediment and erosion control plan for construction projects as necessary and would have it approved by MDE before construction, and JBA would comply with stormwater- and construction-related permits." Implementing best management practices (BMPs) is an effective means to minimizing adverse effects on surface waters. However, describe how the proposed projects would improve water quality in the streams draining to the Chesapeake Bay.

Vegetation

Page 3-28 states, "The site proposed for the HOF has approximately 1.4 acres of oak forest." What is the functional value of the forest? Is it a mature forest? Is there a plan for replacement? If so, what is the replacement ratio?

Miscellaneous

Page 2-14 states, "Table 2-1 summaries the expected environmental effects of implementing the actions proposed in the Installation Development Environmental Assessment (IDEA)." However, Table 2-1 is not included in the EA and should be added to the Final EA.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Office of the Planning Director
Prince George's County Planning Department

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772
TTY: (301) 952-4366
www.mncppc.org/pgco
301-952-3595

D13-022101
MR-13004A

March 26, 2013

Ms. Anne Hodges
Environmental Planner
Joint Base Andrews Naval Air Facility
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762-4803

RE: Proposed Action and Site Map for Multiple Projects at Joint Base Andrews-Naval Air Facility Washington, Maryland

Dear Ms. Hodges:

In a letter dated November 16, 2012, the Prince George's County Planning Department, Community Planning Division responded to your request for comments on the Installation Development Environmental Assessment at Joint Base Andrews. Planning Department staff in the Historic Preservation Section of the Countywide Planning Division has additional comments stated in the enclosed memorandum.

To summarize, the proposed action and site plan will affect one property built in the 1954-1955 timeframe. This property was determined to not be eligible for listing in the National Register of Historic Places. The Prince George's County 2010 *Approved Historic Sites and Districts Plan* does not list any of the buildings proposed for demolition as historic sites or historic resources; therefore, the proposed work will not affect any significant historic properties. However, nine buildings were brought to your attention by the Maryland Historical Trust, which requested that they be provided with a Determination of Eligibility for listing in the National Register of Historic Places. Historic Preservation staff agrees with this request. In addition, archeological surveys are not recommended in any of the proposed construction areas.

Thank you again for allowing us the opportunity to comment on this proposed action and site map. If you should have any additional questions or need additional information, please contact Fatimah Hasan, Planner Coordinator, Special Projects Section, Countywide Planning Division, at 301-952-3580, or via email at Fatimah.Hasan@ppd.mncppc.org.

Sincerely,

Fern Piret

Fern Piret
Planning Director

Enclosure

c: Derick Berlage, Chief, Countywide Planning Division
Maria Martin, Planning Supervisor, Special Projects Section, Countywide Planning Division
Howard Berger, Planning Supervisor, Historic Preservation Section, Countywide Planning Division
Fatimah Hasan, Planner Coordinator, Special Projects Section, Countywide Planning Division
Christine Osei, Mandatory Referral Project Manager, Special Projects Section, Countywide Planning Division

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Prince George's County Planning Department
Historic Preservation Section

(301) 952-3680
www.mncppc.org

March 11, 2013

MEMORANDUM

TO: Fatimah Hasan, Planner Coordinator
Special Projects Section
Countywide Planning Division

FROM: Howard Berger, Supervisor HBB
Jennifer Stabler, Archeology Planner Coordinator JAS
Historic Preservation Section
Countywide Planning Division

SUBJECT: **MF-13004A Installation Development Environmental Assessment at Joint Base Andrews-Naval Air Facility Washington, Prince George's County, Maryland**

Background

Historic Preservation staff has reviewed the subject application for impacts to historical and archeological resources. Joint Base Andrews proposes a program of targeted construction and demolition activities intended to improve its operational efficiency and ensure that the installation can sustain its current and future national security operations and mission-readiness status. Proposed activities include: 1) construct a Helicopter Operations Facility; 2) construct a new fitness center and demolish the West Fitness Center (Building 1444); 3) construct a new Child Development Center and demolish CDC #1 (Building 4575); 4) construct a Security Forces Group complex and demolish two building (Buildings 1642 – Base Library and Building 1605 – a vehicle wash rack), that are on the site selected for the complex; 5) enlarge the parking lot adjacent to Building 1845; 6) demolish Building 1988 (a traffic check house) and construct a new traffic check house in the same location; 7) demolish Buildings 1429 (a generator building), 1679 (Chapel 3), and 1732 (a heat plant), and the canopy and fuel tanks at Building 1685 (a former Army and Air Force Exchange Service gas station); 7) modify three entry control facilities (Main Gate, Pearl Harbor Gate, and Virginia Gate).

Historic Preservation

There is one documented property that will be affected by the proposed development: PG:77-078 Building 1429, a generator building constructed from 1954 to 1955. Building 1429 was determined by the Maryland Historical Trust to be not eligible for listing in the National Register of Historic Places in 2003. Buildings 1413, 1414, 1444, 1605, 1642, 1672, 1732, 1988, and 3229 have not been documented. In a letter dated November 20, 2012, the Maryland Historical Trust asked that they be provided with a Determination of Eligibility (DOE) form for each of the buildings proposed for demolition for which no previous documentation exists. Historic Preservation staff concurs with the Maryland Historical Trust's request that (DOE) forms be provided to determine the eligibility of any of the proposed buildings slated for demolition for inclusion in the National Register of Historic Places.

None of the buildings proposed for demolition are listed in the Prince George's County *Historic Sites and Districts* Plan (2010) as historic sites or historic resources. Therefore, the proposed work will not affect any significant historic properties.

Archeology

Phase I archeological survey is not recommended in any of the proposed construction areas. There are no identified archeological resources in any of the proposed areas of construction. A search of current and historic photographs, topographic and historic maps, and locations of currently known archeological sites indicates the probability of archeological sites within the subject property is low. This proposal will not impact any known archeological resources.

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Comment Response Matrix – Agency and Public Review

Draft Installation Development Environmental Assessment at Joint Base Andrews-Naval Air Facility Washington Prince George's County, Maryland (February 2013)

	Page	Reviewer	Comment	Response
1.	1-4	EPA	Because the HOF is projected to increase operations by 200 percent, please discuss the types of operations to be conducted and whether this considerable increase would have detrimental impacts on noise. It appears as if the EA evaluates noise as it relates to construction only.	While a future mission increase is expected, the specific type and number of aircraft is unknown and cannot be quantified at this time. A new mission beddown would require its own NEPA analysis and Air Installation Compatible Use Zone (AICUZ) study, and the appropriate level of community involvement would be addressed at a later date.
2.	2-14	EPA	Page 2-14 states, "Table 2-1 summaries the expected environmental effects of implementing the actions proposed in the Installation Development Environmental Assessment (IDEA)." However, Table 2-1 is not included in the EA and should be added to the Final EA.	The table was inadvertently deleted during document preparation. It has been added back to the document.
3.	3-5	EPA	The HOF would be within the 65 dB DNL noise contour which would require the facility to need noise level reduction measures built into the design of the facility. Discuss the degree of attenuation to be achieved with reduction measures versus without. It would also be helpful to state the proposed activity level/frequency of the IHS and the 8110SS and discuss activity and noise as it relates to resources in the immediate area.	The construction details of the HOF to achieve a suitable level of noise reduction to ensure the occupational health of the personnel working in the facility are not germane to the analysis in the IDEA. The HOF will be constructed to meet OSHA and DoD/USAF noise reduction requirements for personnel safety and health. As noted above, the activity level/frequency of operations of the IHS and the 8110SS was analyzed in the 2007 JBA BRAC EA and is not re-analyzed in the IDEA.
4.		EPA	EPA recently reviewed another EA for JBA for the Replacement of Taxiway Sierra, Taxiway Whiskey, Pad 12, and Pad 13. The purpose and need for the project is to conform to U.S. Air Force and federal standards and airfield design criteria in order to accommodate large, modern aircraft, as well as replacing deteriorating infrastructure. The Final EA should address the cumulative impact of noise on JBA and surrounding areas for full operation of both proposed projects, including information on types of operations/activity level. Again, the EA only addressed noise in relation to construction impacts. A noise analysis addressing operational impacts from the proposed HOF and taxiway/replacements to assess cumulative effects on JBA and surrounding communities is essential to the environmental	The HOF will be constructed only to provide the organizations with a suitable facility from which to work. No change in operations of the 1HS or 811OSS will result from the construction of a HOF; the 200% mission increase noted in the EA will be the result of a previous action and will be analyzed in a separate NEPA document when it occurs and more about it is known, as mentioned in the response to comment 1. No change in noise will be associated with the operation of the HOF. The noise impact of larger aircraft using the widened taxiways cannot be assessed, as noted in section 3.1.2 of the EA. The taxiways are being replaced with new, wider taxiways because of their poor condition and to accommodate the larger aircraft used by some foreign countries. No information on how many flights of

	Page	Reviewer	Comment	Response
			evaluation.	these larger aircraft there will be at JBA is available, so no noise analysis can be conducted at this time. No change in USAF operations at JBA is proposed as part of the action.
5.		EPA	Briefly describe the activities conducted within the Security Forces Group Complex. Of particular interest, is the weapons cleaning area and any hazardous materials generated or used in the cleaning process as well as safety measures implemented in handling and processing. Also, describe the type of training conducted in the training area and any special requirements needed for safety as it relates to both human health and environmental resources.	The new Security Forces Group (SFG) Complex would relocate various elements of the SFG from numerous locations on JBA to a single location. No new activities would be introduced by SFG occupying a consolidated facility rather than separate facilities. Weapons cleaning and hazardous materials use and hazardous waste generation would still be performed as they are now, but in a new location, so no new activities or increase in hazardous materials use or hazardous waste generation would result from the SFG Complex operation. Similarly, training would be relocated, but no new training would be introduced. Safety would be incorporated into the design of the facility and is an essential part of every Airman's training. As with the HOF, a new facility would being constructed, but no change in the type or quantity of operations would result from the action, so no impacts on training or safety would result. Therefore the IDEA does not discuss the issues. A note to this effect was added to the IDEA in section 1.5.4 and section 2.4.1.
6.	3-19	EPA	Page 3-19 states, "The projects would support JBA in meeting the requirements of EO 13508 by implementing projects that would improve water quality in streams draining to the Chesapeake Bay." EPA appreciates that "...JBA or its contractors would prepare a sediment and erosion control plan for construction projects as necessary and would have it approved by MDE before construction, and JBA would comply with stormwater- and construction-related permits." Implementing best management practices (BMPs) is an effective means to minimizing adverse effects on surface waters. However, describe how the proposed projects would improve water quality in the streams draining to the Chesapeake Bay.	The referenced sentence ("The projects would support JBA in meeting the requirements of EO 13508 by implementing projects that would improve water quality in streams draining to the Chesapeake Bay.") was removed from the document.
7.	3-26	EPA	Page 3-26 states with regards to the Child Development Center Replacement, "A potential environmental concern area is a	All of the approximately 520 sites from which USTs were removed in the former Military Housing Area have been closed.

	Page	Reviewer	Comment	Response
			former military housing area that used USTs to store heating oil, which is adjacent to the southern parcel boundary (JBA updated)." The EA states that "Leaking USTs were investigated by collecting soil and groundwater samples." What were the results of the samples collected? A report of the findings should be included in the Final EA. Using the sample results, discuss whether the area could still be a concern for the proposed Child Development Center.	A note was added to section 3.8.1.3 to that effect.
8.	3-26	EPA	Page 3-26 states in reference to the Building 1845 Parking Lot Addition, "Soil contamination from a former heating oil tank on the site might be present on the parcel." It is assumed that the area will be assessed prior to work on the parking lot. Particularly, since it is stated on page 3-27, "All ACM and LBP in buildings proposed for demolition and contaminated soil would be handled in accordance with JBA environmental standards." However, this statement references contaminated soil that could be encountered where USTs and ASTs were removed or near ERP sites. Since the parking lot addition is an area in which a formal heating oil tank once contaminated the area, please confirm if this area will be assessed for soil contamination.	Regarding soil contamination assessment, a note was added to the IDEA in section 3.8.2.1 that the requirement that all contractors comply with JBA's Environmental Standards includes the disposition of any contaminated soil that is encountered during construction. JBA's Environmental Standards include, among other things with respect to contaminated soils, the following provisions. • Environmental Monitoring and Sampling Plans: The contractor shall include environmental monitoring and sampling plans for all applicable soil, water and air compliance requirements. • Unforeseen Hazardous Materials: If a material that is not indicated on any contract documents or drawings is encountered, and determined to be potentially dangerous to human health upon disturbance during construction operations, the contractor shall stop that portion of work and notify the CO immediately. This would include polychlorinated biphenyls (PCB), lead paint, asbestos, contaminated soils, etc. The CO will determine the appropriate course of action. • Contaminated Materials (Soil and Groundwater): Construction projects that occur in locations where soil or groundwater contamination is known to exist or identified during construction activities shall comply with all applicable environmental and health and safety provisions. Contractor shall coordinate via the CO with 11 CES/CEA prior to construction activities for a site visit by a MDE inspector.

	Page	Reviewer	Comment	Response
9.	3-28	EPA	Page 3-28 states, "The site proposed for the HOF has approximately 1.4 acres of oak forest." What is the functional value of the forest? Is it a mature forest? Is there a plan for replacement? If so, what is the replacement ratio?	The functional value of the wooded area is unknown because it has not been assessed. The wooded area does not support rare, threatened, or endangered species, or other biologically or ecologically significant resources. Tree replacement will be completed in accordance with JBA's Environmental Standards, which contain the following relevant provisions. • 2.10.2 If trees are to be removed, then they must be replaced by project proponent according to the following: o 2.10.2.1 For removal of canopy cover of less than one (1) acre, one (1) tree shall be planted for each tree removed, according to a 1:1 ratio. o 2.10.2.2 For removal of canopy cover exceeding one (1) acre, 60% of the canopy cover must be reforested. • 2.10.3 Replacement trees must be native species, 2-5 inch caliper, replaced prior to tree removal (when possible), and arranged in stands similar to those removed. The tree replacement plan will be developed as part of the overall project planning, but that plan has not yet been developed.
10.		Prince George's County	The proposed action and site plan will affect one property built in the 1954-1955 timeframe. This property was determined to not be eligible for listing in the National Register of Historic Places. The Prince George's County 2010 Approved Historic Sites and Districts Plan does not list any of the buildings proposed for demolition as historic sites or historic resources; therefore, the proposed work will not affect any significant historic properties. However, nine buildings were brought to your attention by the Maryland Historical Trust, which requested that they be provided with a Determination of Eligibility for listing in the National Register of Historic Places. Historic Preservation staff agrees with this request. In addition, archeological surveys are not recommended in any of the proposed construction areas	Noted. JBA is working with Maryland Historic Trust (MHT) to determine eligibility of these buildings. Any further action will be determined based on consultation with the MHT."

Maryland Department of Planning
Maryland Historical Trust

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Richard Eberhart Hall
Secretary

Matthew J. Power
Deputy Secretary

May 6, 2013

Anne Hodges
11 CES/CEAO
3466 North Carolina Avenue
Joint Base Andrews, MD 20762

Re: Multiple (11) Projects at Joint Base Andrews
Naval Air Facility Washington, Maryland
MD20121017-0738
Historic Preservation Review

Dear Ms. Hodges:

Thank you recent submittal received on April 22, 2013 with some of the additional information requested in the Maryland Historical Trust's (Trust), November 20, 2012 letter. The Determination of Eligibility form is an important tool used in Maryland to identify and evaluate historic properties in accordance with Section 106 and 110 of the National Historic Preservation Act (NHPA). Section 110 of the NHPA places a variety of responsibilities on federal agencies some of which have been undertaken with previous historic properties studies at Joint Base Andrews in 1996 and 2002. As of today these surveys are over 10 years old and the information is now in need of updating.

Unfortunately the information provided while on the Trust's DOE form appears to have not been completed by a qualified architectural historian, preservationist, or historian. To be accessioned into the Maryland Inventory of Historic Properties as the 2002 study product was documentation must meet the strict format and archival standards described in *Standards and Guidelines for Architectural and Historical Investigations in Maryland* (*Standards*) and *The General Guidelines for Compliance-Generated Determinations of Eligibility*. Both of these are available from our website, *http://mht.maryland.gov/documents/PDF/Compliance_guidelines_DOE_May_2009.pdf*. Since the forms submitted do not contain a sufficient description of the buildings, and they lacked a historical context to evaluate a property under National Register Criteria A and B or C they cannot be included in the Trust's inventory.

The Trust was able to glean a bit of information from what was submitted and combine it with the original submittal to get enough information to complete our original comments regarding effects on historic properties. Based upon our review of the undertakings, we have determined the following:

No historic properties are affected by the following undertakings:

- Helicopter Operations Facility
- Construction of new fitness center
- Child Development Center
- Removal of AAFES canopy and fuel tanks
- Security Forces Group complex
- Construction of new Check house
- Demolition of Building 1429, 1679, 1732, 1988, 1642, 1605 and 1444

100 Community Place . Crownsville, Maryland 21032-2023
Telephone: 410.514.7600 . Fax: 410.987.4071 . Toll Free: 1.800.756.0119 . TTY Users: Maryland Relay
Internet: http://mht.maryland.gov

Thank you for providing us this opportunity to comment under Section 106 of the NHPA. We appreciate the Department of the Air Force's ongoing efforts to collect information about historic properties located within Maryland and to help facilitate this we would recommend scheduling a coordination meeting in the near future so we might discuss the Air Force's future survey efforts and compliance with Section 106. If you should have any questions, please contact me at aapple@mdp.state.md.us or 410-514-7630.

Sincerely,

Amanda R. Apple
Preservation Officer, Project Review & Compliance
Maryland Historical Trust

CC: Dominador Morales (Joint Base Andrews)

ARA/ 201301810

Parris N. Glendening
Governor

Kathleen Kennedy Townsend
Lt. Governor

Maryland Department of Planning

Roy W. Kienitz
Secretary

Mary J. Abrams
Deputy Secretary

August 27, 2002

Mr. Keith Harris
Environmental Officer
89 CES/CEV
Andrews Air Force Base
3479 Fetchet Avenue
Andrews AFB, MD 20762-4803

REVIEW AND RECOMMENDATION

State Application Identifier: MD20020624-0676
Description: Description of Proposed Action & Alternatives: prior to submission of E. A.: enhance security; provide pedestrian recreation, fire protection & invasive species control
Applicant: Andrews Air Force Base
Location: Prince George's County
Approving Authority: U.S. Department of Defense

Recommendation: **Consistent Including General Comments**

Dear Mr. Harris :

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 14.24.04, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the State process review and recommendation based upon comments received to date. This recommendation is valid for a period of three years from the date of this letter.

Review comments were requested from the Maryland Departments of Environment, Housing and Community Development including the Maryland Historical Trust, Natural Resources, State Police, Military; Prince George's County; Maryland-National Capital Park and Planning Commission in Prince George's County; and the Maryland Department of Planning. All reviewers who responded found this project to be **consistent** with their plans, programs, and objectives. As of this date, Maryland Department of the Environment; Prince George's County; and the Maryland-National Capital Park and Planning Commission in Prince George's County have not submitted comments. This endorsement is contingent upon the resolution of any problems or conditions that may be identified by their review. Any comments received will be forwarded.

Summary of Comments:

The Maryland Historical Trust has determined that the project will have "no effect" on historic properties and that the federal and/or State historic preservation requirements have been met.

301 West Preston Street • Suite 1101 • Baltimore, Maryland 21201-2305
Tel: 410.767.4500 • Fax: 410.767.4480 • Toll Free: 1.800.767.6272 • TTY Users: Maryland Relay
Internet: www.mdp.state.md.us

The State Application Identifier Number must be placed on any correspondence pertaining to this project. The State Clearinghouse must be kept informed if the recommendation cannot be accommodated by the approving authority. Please remember, you must comply with all applicable state and local laws and regulations. If you have any questions about the comments contained in this letter or how to proceed, please contact the State Clearinghouse at 410-767-4490. **Also please complete the attached form and return it to the State Clearinghouse as soon as the status of the project is known.** ***Any substitutions of this form must include the State Application Identifier Number.*** **This will ensure that our files are complete.**

We appreciate your attention to the intergovernmental review process and look forward to your continued cooperation.

Sincerely,

Linda C. Janey, J.D.
Director, Clearinghouse & Plan Review Unit

LCJ:BR:ee

cc: Geo-Marine - Daryl Thomas
MDE - Joane Mueller
DHCD - Kathryn Orosz
DNR - Ray Dintaman
MDSP - Martin Knight
MILT - Friedrich Martin
PGEO - Beverly Warfield
MNCPPC-PGEO - Thomas Tyson

Appendix B
Air Quality Emissions Calculations

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Table B-1. Construction equipment use (Helicopter Operations Facility)

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Excavators	3	115	4	1,380
Rollers	1	173	8	1,384
Rubber Tired Dozers	2	115	8	1,840
Plate Compactors	1	115	4	460
Trenchers	2	58	8	928
Air Compressors	1	115	4	460
Cement Mixers	2	115	6	1,380
Cranes	1	115	7	805
Generator Sets	2	115	4	920
Loaders/Backhoes	3	230	7	4,830
Pavers	4	58	8	1,856
Paving Equipment	4	58	8	1,856

Table B-2. Construction equipment emission factors (lbs/hour)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Excavators	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Rollers	0.4341	0.8607	0.1328	0.0008	0.0601	0.0601	67.1
Rubber Tired Dozers	1.5961	3.2672	0.3644	0.0025	0.1409	0.1409	239.1
Plate Compactors	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers	0.5080	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Air Compressors	0.3782	0.7980	0.1232	0.0007	0.0563	0.0563	63.6
Cement Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Cranes	0.6011	1.6100	0.1778	0.0014	0.0715	0.0715	128.7
Generator Sets	0.3461	0.6980	0.1075	0.0007	0.0430	0.0430	61.0
Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Source CARB 2012

Table B-3. Construction equipment emissions (tons) (Helicopter Operations Facility)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Excavators	0.4022	0.9142	0.1170	0.0009	0.0502	0.0502	82.5
Excavators	0.3004	0.5956	0.0919	0.0005	0.0416	0.0416	46.4
Rollers	1.4684	3.0058	0.3353	0.0023	0.1296	0.1296	220.0
Rubber Tired Dozers	0.0061	0.0076	0.0012	0.0000	0.0005	0.0005	1.0
Plate Compactors	0.2357	0.3822	0.0859	0.0003	0.0319	0.0319	27.2
Trenchers	0.0870	0.1835	0.0283	0.0002	0.0130	0.0130	14.6
Air Compressors	0.0309	0.0454	0.0078	0.0001	0.0031	0.0031	5.0
Cement Mixers	0.2419	0.6480	0.0716	0.0006	0.0288	0.0288	51.8
Cranes	0.1592	0.3211	0.0494	0.0003	0.0198	0.0198	28.1
Generator Sets	0.9813	1.8706	0.2908	0.0019	0.1446	0.1446	161.3
Loaders/Backhoes	0.5451	1.0019	0.1822	0.0008	0.0714	0.0714	72.3
Pavers	0.0494	0.0984	0.0154	0.0001	0.0059	0.0059	11.7
Total	4.51	9.07	1.28	<0.1	0.54	0.54	722.0

Table B-4. Emissions from painting (Helicopter Operations Facility)

VOC Content	0.84	lbs/gallon		
Coverage	400	sqft/gallon		
Emission Factor	0.0021	lbs/sqft		
Building/Facility	Area [sqft]	Wall Surface	VOC [lbs]	VOC [tons]
All Buildings Combined	59,524	119,048	250.0	0.125
Total	59,524	119,048	250.0	0.13

Source: SCAQMD 1993

Table B-5. Emissions from delivery of equipment (Helicopter Operations Facility)

Number of Deliveries	2						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	27,600						
Pollutant	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Emission Factor (lbs/mile)	2.2E-02	2.4E-02	3.0E-03	2.6E-05	8.6E-04	7.4E-04	2.7E+00
Total Emissions (lbs)	605.8	654.5	82.6	0.7	23.6	20.4	75,056.4
Total Emissions (tons)	0.30	0.33	0.04	0.0004	0.01	0.01	37.5

Source: CARB 2012

Table B-6. Particulates from surface disturbance (Helicopter Operations Facility)

TSP Emissions	37.4	lb/acre				
PM_{10}/TSP	0.45					
$PM_{2.5}/PM_{10}$	0.15					
Period of Disturbance	30	Days				
Capture Fraction	0.5					
Building/Facility	Area [acres]	TSP [lbs]	PM_{10} [lbs]	PM_{10} [tons]	$PM_{2.5}$ [lbs]	$PM_{2.5}$ [tons]
All Facilities	17.7	19,840	8,928	4.46	670	0.33
Total	17.7	19,840	8,928	4.46	670	0.33

Source: USEPA 1995

Table B-7. Emissions from worker commutes (Helicopter Operations Facility)

Number of Workers	52						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	58						
Total Miles	180,960						
Pollutant	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Emission Factor (lbs/mile)	1.1E-02	1.1E-03	1.1E-03	1.1E-05	8.5E-05	5.3E-05	1.1E+00
Total Emissions (lbs)	1,909	200	195	2	15	10	198,971
Total Emissions (tons)	0.95	0.10	0.10	1.9	0.01	0.00	99.5

Source: CARB 2012

Table B-8. Total construction emissions (tons) (Helicopter Operations Facility)

Activity/Source	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Heavy Equipment	4.51	9.07	1.28	0.0080	0.54	0.54	721.98
Painting	0.00	0.00	0.13	0.0000	0.00	0.00	0.00
Delivery of Equipment	0.30	0.33	0.04	0.0004	0.01	0.01	37.53
Surface Disturbance	0.00	0.00	0.00	0.0000	4.46	0.33	0.00
Worker Commutes	0.95	0.10	0.10	1.9449	0.01	0.00	99.49
Total Emissions	5.8	9.5	1.5	2.0	5.0	0.9	859.0

Source: CARB 2012, SCAQMD 1993, USEPA 1995

Table B-9. Total construction emissions (tons) (all projects)

	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Helicopter Operations Facility	5.8	9.5	1.5	2.0	5.0	0.9	859
Fitness Center	12.2	20.1	3.3	4.1	10.6	1.9	1,813
Child Development Center	5.8	9.5	1.5	2.0	5.0	0.9	863
Security Forces Complex	11.2	18.4	3.0	3.8	9.7	1.7	1,665
Building 1988 Replacement	0.9	1.4	0.3	0.4	0.9	0.2	147
Building Demolition	2.2	3.6	0.6	0.7	1.9	0.3	327
Gate Modification	1.4	2.3	0.4	0.5	1.2	0.2	204
Total Construction Emissions	40.7	67.1	10.9	13.9	35.6	6.3	6082.3

Source: CARB 2012, SCAQMD 1993, USEPA 1995

Table B-10. Heating emission (Helicopter Operations Facility)

Heating Fuel	Natural Gas						
Region	South						
Gross Area	56,024	sf					
Heating Requirements	101.2	Btu/sf					
Annual Heating	5,669,629	Btu/year					
Heating Value	1,020	Btu/scf					
Annual Fuel Use	5,558	scf/year					
Pollutant	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Emission Factors (lb/1000 scf)	84	190	5.5	0.6	7.6	7.6	1.2E+05
Total Emissions (tpy)	0.2	0.5	<0.1	<0.1	<0.1	<0.1	333.5

Source: USEPA 1995, DOE 2003

Table B-11. Emissions from Worker Commutes (Helicopter Operations Facility)

Trips Generated	Weekday	4,737	Saturday	1,086	Sunday	290	
Annual Number of Trips	1,303,290						
Miles Per Trip	30						
Days of Work	260						
Total Miles	1,231,724						
Pollutant	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Emission Factor (lbs/mile)	1.1E-02	1.1E-03	1.1E-03	1.1E-05	8.5E-05	5.3E-05	1.1E+00
Total Emissions (lbs)	12,992.8	1,358.4	1,329.3	13.2	104.8	65.2	1.4E+06
Total Emissions (tons)	6.5	0.7	0.7	<0.1	<0.1	<0.1	677.2

Source: CARB 2012

Table B-12. Total Operational Emissions (tons per year) (Helicopter Operations Facility)

Activity/Source	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Heating Emissions	0.23	0.53	<0.1	<0.1	<0.1	<0.1	333.5
Worker Commutes	6.50	0.68	0.66	<0.1	<0.1	<0.1	677.2
Total Operational Emissions	6.7	1.2	0.7	<0.1	<0.1	<0.1	1,010.7

Source: USEPA 1995, DOE 2003, and CARB 2012

Table B-13. Total Operational Emissions (tons per year) (All Alternatives)

	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Helicopter Operations Facility	6.7	1.2	0.7	<0.1	<0.1	<0.1	1,010.7
Fitness Center	5.9	1.1	0.6	<0.1	<0.1	<0.1	882.1
Child Development Center	2.3	0.4	0.2	<0.1	<0.1	<0.1	340.6
Security Forces Complex	5.1	0.9	0.5	<0.1	<0.1	<0.1	768.6
Total Operational Emissions	20.0	3.6	2.0	<0.1	<0.1	<0.1	3,001.9

Source: USEPA 1995, DOE 2003, and CARB 2012

Appendix C
Economic Impact Forecast System (EIFS) Model

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ECONOMIC IMPACT FORECAST SYSTEM (EIFS) MODEL

SOCIOECONOMIC IMPACT ASSESSMENT

Socioeconomic impacts are linked through cause-and-effect relationships. Military payrolls and local procurement contribute to the economic base for the ROI. In this regard, the proposed JBA demolition, renovation, and construction projects would have a multiplier effect on the local and regional economy. With the proposed action, direct jobs would be created (e.g., construction jobs), generating new income and increasing personal spending. This spending generally creates secondary jobs, increases business volume, and increases revenues for schools and other social services.

THE ECONOMIC IMPACT FORECAST SYSTEM

The U.S. Army, with the assistance of many academic and professional economists and regional scientists, developed EIFS to address the economic impacts of NEPA-requiring actions and to measure their significance. As a result of its designed applicability, and in the interest of uniformity, EIFS should be used in NEPA assessments. The entire system is designed for the scrutiny of a populace affected by the actions being studied. The algorithms in EIFS are simple and easy to understand, but still have firm, defensible bases in regional economic theory.

EIFS was developed under a joint project of the U.S. Army Corps of Engineers, the U.S. Army Environmental Policy Institute, and the Computer and Information Science Department of Clark Atlanta University. EIFS is implemented as an on-line system supported by the U.S. Army Corps of Engineers, Mobile District. The system is available to anyone with an approved user-id and password. U.S. Army Corps of Engineers staff is available to assist with the use of EIFS.

The databases in EIFS are national in scope and cover the approximately 3,700 counties, parishes, and independent cities that are recognized as reporting units by federal agencies. EIFS allows the user to define an economic ROI by identifying the counties, parishes, or cities to be analyzed. Once the ROI is defined, the system aggregates the data, calculates multipliers and other variables used in the various models in EIFS, and prompts the user for forecast input data.

THE EIFS MODEL

The basis of the EIFS analytical capabilities is the calculation of multipliers that are used to estimate the impacts resulting from federal-related changes in local expenditures or employment. In calculating the multipliers, EIFS uses the economic base model approach, which relies on the ratio of total economic activity to basic economic activity. Basic, in this context, is defined as the production or employment engaged to supply goods and services outside the ROI or by federal activities (such as military installations and their employees). According to economic base theory, the ratio of total income to basic income is measurable (as the multiplier) and sufficiently stable so that future changes in economic activity can be forecast. This technique is especially appropriate for estimating aggregate impacts and makes the economic base model ideal for the EA and EIS process.

The multiplier is interpreted as the total impact on the economy of the region resulting from a unit change in its base sector; for example, a dollar increase in local expenditures because of an expansion of its military installation. EIFS estimates its multipliers using a location quotient approach based on the concentration of industries within the region relative to the industrial concentrations for the nation.

The user inputs into the model the data elements which describe the action: the change in expenditures, or dollar volume of the construction project(s); change in civilian or military employment; average annual income of affected civilian or military employees; the percent of civilians expected to relocate because of the proposed action; and the percent of military living on-post. Once these are entered into the EIFS model, a projection of changes in the local economy is provided. These are projected changes in sales volume, income, employment, and population. These four indicator variables are used to measure and evaluate socioeconomic impacts. Sales volume is the direct and indirect change in local business activity and sales (total retail and wholesale trade sales, total selected service receipts, and value-added by manufacturing). Employment is the total change in local employment because of the proposed action, including not only the direct and secondary changes in local employment, but also those personnel who are initially affected by the military action. Income is the total change in local wages and salaries because of the proposed action, which includes the sum of the direct and indirect wages and salaries, plus the income of the civilian and military personnel affected by the proposed action. Population is the increase or decrease in the local population as a result of the proposed action.

The proposed actions at JBA would include demolition, renovation, and construction. The current working estimate for the total cost of these proposed projects (about $219 million) was divided over the projected 6-year development period (approximately 2013 – 2018) and input in to the EIFS model as the change in expenditures (about $36.5 million per year). The proposed action would not change the number of military or civilian personnel assigned to JBA; therefore, there would be no change in population.

THE SIGNIFICANCE OF SOCIOECONOMIC IMPACTS

Once model projections are obtained, the Rational Threshold Value (RTV) profile allows the user to evaluate the significance of the impacts. This analytical tool reviews the historical trends for the defined region and develops measures of local historical fluctuations in sales volume, income, employment, and population. These evaluations identify the positive and negative changes within which a project can affect the local economy without creating a significant impact. The greatest historical changes define the boundaries that provide a basis for comparing an action's impact on the historical fluctuation in a particular area. Specifically, EIFS sets the boundaries by multiplying the maximum historical deviation of the following variables:

		Increase	Decrease
Sales Volume	X	100%	75%
Income	X	100%	67%
Employment	X	100%	67%
Population	X	100%	50%

These boundaries determine the amount of change that will affect an area. The percentage allowances are arbitrary, but sensible. The maximum positive historical fluctuation is allowed with expansion because economic growth is beneficial. While cases of damaging economic growth have been cited, and although the zero-growth concept is being accepted by many local planning groups, military base reductions and closures generally are more injurious to local economics than are expansion.

The major strengths of the RTV are its specificity to the region under analysis and its basis on actual historical data for the region. The EIFS impact model, in combination with the RTV, has proven successful in addressing perceived socioeconomic impacts. The EIFS model and the RTV

technique for measuring the intensity of impacts have been reviewed by economic experts and have been deemed theoretically sound.

The following are the EIFS input and output data for the proposed action and the RTV values for the ROI.

EIFS REPORT

PROJECT NAME

JBA – Multiple Projects (Demolition, Renovation, and Construction Projects)

STUDY AREA

Prince George's County, MD

FORECAST INPUT

Change In Local Expenditures	$36,504,990
Change In Civilian Employment	0
Average Income of Affected Civilian	$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Employment Multiplier	2.83	
Income Multiplier	2.83	
Sales Volume – Direct	$36,504,990	
Sales Volume – Induced	$66,804,120	
Sales Volume – Total	$103,309,100	0.35%
Income – Direct	$6,674,704	
Income - Induced	$12,214,710	
Income – Total (place of work)	$18,889,410	0.09%
Employment – Direct	153	
Employment – Induced	281	
Employment – Total	434	0.11%
Local Population	0	
Local Off-base Population	0	0.00%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	13.74%	11.72%	4.59%	3.30%
Negative RTV	-5.32%	-4.48%	-4.17%	-0.85%

RTV DETAILED

SALES VOLUME

Year	Value	Adj Value	Change	Deviation	%Deviation
1969	1311821	5732658	0	0	0
1970	1486616	6139724	407067	153154	2.49
1971	1666838	6600679	460954	207041	3.14
1972	1883086	7212219	611541	357628	4.96
1973	2110529	7619009	406790	152877	2.01
1974	2307655	7499879	-119131	-373044	-4.97
1975	2453531	7311522	-188356	-442269	-6.05
1976	2699624	7612939	301417	47504	0.62
1977	2935901	7750779	137839	-116074	-1.5
1978	3254441	8005925	255146	1233	0.02
1979	3631494	8025602	19677	-234236	-2.92
1980	4028557	7815401	-210201	-464114	-5.94
1981	4430916	7798412	-16989	-270902	-3.47
1982	4577146	7598062	-200350	-454263	-5.98
1983	4970975	8003270	405208	151295	1.89
1984	5600643	8624990	621720	367807	4.26
1985	6376749	9501356	876366	622453	6.55
1986	7047456	10289286	787930	534017	5.19
1987	7885395	12222362	1933076	1679163	13.74
1988	8587537	11679050	-543311	-797224	-6.83
1989	9197479	11864748	185697	-68216	-0.57
1990	10021287	12326183	461436	207523	1.68
1991	9955098	11747015	-579168	-833081	-7.09
1992	10238359	11671729	-75286	-329199	-2.82
1993	10633391	11803064	131335	-122578	-1.04
1994	11010346	11891174	88110	-165803	-1.39
1995	11317030	11882881	-8293	-262206	-2.21
1996	11880862	12118479	235598	-18315	-0.15
1997	12781994	12781994	663515	409602	3.2
1998	13284829	13019133	237139	-16774	-0.13
1999	13818444	13265706	246573	-7340	-0.06
2000	14900935	13857870	592164	338251	2.44

INCOME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	2711417	11848892	0	0	0
1970	3132753	12938270	1089378	755077	5.84
1971	3439625	13620915	682645	348344	2.56
1972	3741997	14331848	710933	376632	2.63
1973	4069014	14689140	357292	22991	0.16
1974	4399110	14297108	-392033	-726334	-5.08
1975	4719196	14063204	-233903	-568204	-4.04
1976	5083661	14335924	272720	-61581	-0.43
1977	5448505	14384054	48130	-286171	-1.99
1978	5881297	14467991	83937	-250364	-1.73
1979	6417356	14182357	-285634	-619935	-4.37
1980	7049501	13676032	-506325	-840626	-6.15
1981	7818331	13760262	84230	-250071	-1.82
1982	8432835	13998506	238243	-96058	-0.69
1983	9096525	14645405	646900	312599	2.13
1984	10119271	15583677	938272	603971	3.88
1985	11083235	16514020	930343	596042	3.61
1986	11916961	17398764	884743	550442	3.16
1987	12959671	20087489	2688726	2354425	11.72
1988	14076285	19143748	-943742	-1278043	-6.68
1989	15176568	19577772	434024	99723	0.51
1990	16172648	19892357	314585	-19716	-0.1
1991	16716212	19725129	-167228	-501529	-2.54
1992	17356581	19786502	61373	-272928	-1.38
1993	18039887	20024275	237773	-96528	-0.48
1994	18746733	20246472	222198	-112103	-0.55
1995	19165209	20123469	-123004	-457305	-2.27
1996	19671905	20065343	-58126	-392427	-1.96
1997	20616650	20616650	551307	217006	1.05
1998	21712782	21278527	661877	327576	1.54
1999	22554116	21651951	373424	39123	0.18
2000	24243561	22546512	894561	560260	2.48

EMPLOYMENT

Year	Value	Change	Deviation	%Deviation
1969	190249	0	0	0
1970	198932	8683	2018	1.01
1971	208284	9352	2687	1.29
1972	221176	12892	6227	2.82
1973	229967	8791	2126	0.92
1974	232606	2639	-4026	-1.73
1975	232320	-286	-6951	-2.99
1976	234526	2206	-4459	-1.9
1977	239433	4907	-1758	-0.73
1978	250626	11193	4528	1.81
1979	257679	7053	388	0.15
1980	264693	7014	349	0.13
1981	267346	2653	-4012	-1.5
1982	261973	-5373	-12038	-4.6
1983	271284	9311	2646	0.98
1984	287076	15792	9127	3.18
1985	307866	20790	14125	4.59
1986	324453	16587	9922	3.06
1987	340835	16382	9717	2.85
1988	356225	15390	8725	2.45
1989	366294	10069	3404	0.93
1990	378979	12685	6020	1.59
1991	363077	-15902	-22567	-6.22
1992	356169	-6908	-13573	-3.81
1993	359769	3600	-3065	-0.85
1994	364674	4905	-1760	-0.48
1995	369723	5049	-1616	-0.44
1996	378225	8502	1837	0.49
1997	387407	9182	2517	0.65
1998	390484	3077	-3588	-0.92
1999	395371	4887	-1778	-0.45
2000	403532	8161	1496	0.37

POPULATION

Year	Value	Change	Deviation	%Deviation
1969	639024	0	0	0
1970	666136	27112	21969	3.3
1971	687757	21621	16478	2.4
1972	697949	10192	5049	0.72
1973	693012	-4937	-10080	-1.45
1974	689495	-3517	-8660	-1.26
1975	683044	-6451	-11594	-1.7
1976	680269	-2775	-7918	-1.16
1977	674922	-5347	-10490	-1.55
1978	671171	-3751	-8894	-1.33
1979	665610	-5561	-10704	-1.61
1980	666369	759	-4384	-0.66
1981	670209	3840	-1303	-0.19
1982	671811	1602	-3541	-0.53
1983	674430	2619	-2524	-0.37
1984	679390	4960	-183	-0.03
1985	683487	4097	-1046	-0.15
1986	688863	5376	233	0.03
1987	694845	5982	839	0.12
1988	708095	13250	8107	1.14
1989	719550	11455	6312	0.88
1990	731076	11526	6383	0.87
1991	743058	11982	6839	0.92
1992	749080	6022	879	0.12
1993	753273	4193	-950	-0.13
1994	762733	9460	4317	0.57
1995	770861	8128	2985	0.39
1996	779187	8326	3183	0.41
1997	780666	1479	-3664	-0.47
1998	789037	8371	3228	0.41
1999	795048	6011	868	0.11
2000	803612	8564	3421	0.43

****** End of Report ******

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Appendix D
Coastal Zone Consistency Determination

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Consistency with Maryland Coastal Program Enforceable Coastal Policies

Joint Base Andrews is within Maryland's designated coastal zone, and as such is regulated under the federal Coastal Zone Management Act (CZMA) and Maryland's federally-approved Coastal Zone Management Program.

The projects proposed in the EA would be fully consistent with Maryland's Enforceable Coastal Policies. No effects on Maryland's coastal resources would be expected from implementing the projects in the EA. All activities would be conducted in accordance with applicable laws, regulations, and policies governing erosion and sediment control and stormwater management, which would ensure that all the projects would occur in a manner consistent with the applicable Maryland Coastal Program enforceable policies. A synopsis of how the projects would be consistent with the enforceable coastal policies is provided below.

Maryland's Enforceable Coastal Policies are divided into three general sections: General Policies, Coastal Resources, and Coastal Uses. The General Policies are further divided into Core Policies, Water Quality, and Flood Hazards. Compliance of the projects proposed in the EA with each of the applicable enforceable policies is discussed below. Policies not applicable to the proposed projects are noted.

GENERAL POLICIES

Core Policies

Policy: It is State policy to maintain that degree of purity of air resources which will protect the health, general welfare, and property of the people of the State. MDE (C9) Md. Code Ann., Envir. §§ 2-102 to -103.

As noted in Section 3.2.2 of the EA, the Air Force and any contractors would comply with all applicable air pollution control regulations when implementing the projects proposed in the EA. Section 3.2 of the EA contains a detailed discussion of the projected air emissions associated with the proposed projects. If boilers or other equipment capable of producing emissions are installed as a result of the proposed projects, JBA would obtain a permit to construct from MDE's Air and Radiation Management Administration for the equipment.

Policy: The environment shall be free from noise which may jeopardize health, general welfare, or property, or which degrades the quality of life. MDE (C9) COMAR 26.02.03.02.

Section 3.1 of the EA provides a detailed discussion of the noise environment and expected noise-related impacts associated with the projects proposed in the EA. Construction noise associated with each project would cease upon completion of construction and no significant new sources of environmental noise would be introduced.

Policy: Soil erosion shall be prevented to preserve natural resources and wildlife; control floods; prevent impairment of dams and reservoirs; maintain the navigability of rivers and harbors; protect the tax base, the public lands, and the health, safety and general welfare of the people of the State, and to enhance their living environment. MDA (C4) Md. Code Ann., Agric. § 8- 102(d).

JBA will control pre- and post-construction stormwater runoff, including erosion, sedimentation, and nonpoint source pollution, throughout the duration of each project. JBA will comply with the requirements described in the MDE document *Maryland Stormwater Management Guidelines for State and Federal Projects* (MDE 2010) and the MDE *Stormwater Management Act of 2007* (MDE 2007). JBA will implement environmental site design to the maximum extent practicable through the use of nonstructural BMPs and other site design techniques.

Policy: Controlled hazardous substances may not be stored, treated, dumped, discharged, abandoned, or otherwise disposed anywhere other than a permitted controlled hazardous substance facility or a facility that provides an equivalent level of environmental protection. MDE (D4) Md. Code Ann., Envir. § 7-265(a).

All contractors involved with implementing the proposed actions would be required to comply with JBA's Environmental Protection Standards for contracts, which includes managing, storing, transporting, and disposing of hazardous materials and wastes and taking all necessary precautions to prevent spills of hazardous materials (including oils and hazardous wastes) in accordance with all applicable federal, state, and local laws and regulations.

Water Quality Policies

Policy: No one may add, introduce, leak, spill, or emit any liquid, gaseous, solid, or other substance that will pollute any waters of the State without State authorization. MDE (A5) Md. Code Ann., Envir. §§ 4-402, 9-101, 9-322.

The EA discusses compliance with laws, regulations, and policies related to the use, storage, and disposal of hazardous wastes and materials in Section 3.8. All contractors involved with implementing the proposed actions would be required to use hazardous materials; manage, store, transport, and dispose of hazardous wastes; and take all necessary precautions to prevent spills of hazardous materials (including oils and hazardous wastes) in accordance with all applicable JBA environmental standards and federal, state, and local laws and regulations. This would include any asbestos-containing materials and lead-based paint removed from facilities to be demolished and contaminated soil encountered where USTs and ASTs are removed or near ERP sites.

Policy: All waters of the State shall be protected for water contact recreation, fish, and other aquatic life and wildlife. Shellfish harvesting and recreational trout waters and waters worthy of protection because of their unspoiled character shall receive additional protection. MDE (A1) COMAR 26.08.02.02.

JBA would protect the water quality of state waters by implementing erosion and sediment control measures on all construction sites and control pre- and post-construction stormwater runoff, including erosion, sedimentation, and nonpoint source pollution in accordance with Maryland *Stormwater Management Guidelines for State and Federal Projects* (MDE 2010), and the MDE *Stormwater Management Act of 2007* (MDE 2007). Additionally, all contractors would be required to manage, store, transport, and dispose of hazardous materials and wastes properly.

Policy: Any development or redevelopment of land for residential, commercial, industrial, or institutional purposes shall use small-scale non-structural stormwater management practices and site planning that mimics natural hydrologic conditions, to the maximum extent practicable. Development or redevelopment will be consistent with this policy when channel stability and 100 percent of the average annual predevelopment groundwater recharge are maintained, nonpoint source pollution is minimized, and structural stormwater management practices are used only if determined to be absolutely necessary. MDE (C9) Md. Code Ann., Envir. § 4-203; COMAR 26.17.02.01, .06.

JBA will incorporate Sustainable Design and Development and energy conservation principles into facility design, and all construction will be designed to incorporate low-impact development practices in accordance with EO 13423 and EO 13514, the Energy Policy Act of 2005, the Energy Independence and Security Act 2007, Army Sustainable Design and Development Policy, other applicable codes, laws and EOs. The facilities also would be constructed to achieve a minimum Silver rating by the U.S. Green Building Council under the Leadership in Energy and Environmental Design rating system.

Flood Hazards Policies

None of the Flood Hazards Policies are applicable to the proposed projects in the EA. None of the proposed projects would occur in a floodplain.

COASTAL RESOURCES POLICIES

The Chesapeake and Atlantic Coastal Bays Critical Area

None of the Chesapeake and Atlantic Coastal Bays Critical Area Policies are applicable to the proposed projects in the EA. None of the proposed projects would occur in a Chesapeake and Atlantic Coastal Bays Critical Area.

Tidal Wetlands

None of the Tidal Wetlands Policies are applicable to the proposed projects in the EA. None of the proposed projects would occur in a tidal wetland.

Non-Tidal Wetlands

None of the Non-Tidal Wetlands Policies are applicable to the proposed projects in the EA. None of the proposed projects would occur in a non-tidal wetland.

Forests

Policy: The Forest Conservation Act and its implementing regulations, as approved by NOAA, are enforceable policies. Generally, before developing an area greater than 40,000 square feet, forested and environmentally sensitive areas must be identified and preserved whenever possible. If these areas cannot be preserved, reforestation or other mitigation is required to replace the values associated with them. This policy does not apply in the Critical Area. DNR (C5) Md. Code Ann., Nat. Res. §§ 5-1601 to -1613; COMAR 08.19.01-.06.

Policy: Forestry activities shall provide for adequate restocking, after cutting, of trees of desirable species and condition; provide for reserving, for growth and subsequent cutting, a sufficient growing stock of thrifty trees of desirable species to keep the land reasonably productive; and prevent clear-cutting, or limit the size of a tract to be clear-cut in areas where clear-cutting will seriously interfere with protection of a watershed. DNR (C5) Md. Code Ann., Nat. Res. § 5-606.

Construction of the Helicopter Operations Facility would require removing a small patch of forest on the proposed site. JBA would comply with regulations concerning the conservation and preservation of trees as described in the Maryland Forest Conservation Act of 1991 and the Prince George's County Woodland Conservation and Tree Preservation Ordinance. JBA would review the proposed construction projects to determine the need for tree replacement, and replace trees in accordance with the requirements in the JBA Integrated Natural Resources Management Plan.

Historical and Archaeological Sites

The Historical and Archaeological Sites Policy is not applicable to the proposed projects. None of the proposed projects would involve a submerged archaeological historic property, a cave feature or archeological site under state control, or a burial site or cemetery.

The Living Aquatic Resources Policies are not applicable to the proposed projects in the EA. None of the proposed projects would affect aquatic resources.

COASTAL USES

The Coastal Uses Policies listed below are not applicable to the proposed projects.

Mineral Extraction: None of the proposed projects involve mineral extraction.

Electrical Generation and Transmission: None of the proposed projects involve power plant construction, electrical transmission lines, or cooling water intake structures.

Tidal Shore Erosion Control: No tidal shores occur within the proposed project footprints.

Oil and Natural Gas Facilities: None of the proposed projects would involve vessels transporting oil or above-ground oil storage sites.

Dredging and Disposal of Dredged Material: None of the proposed projects would involve dredging or the disposal of dredged material.

Navigation: None of the proposed projects would involve navigation or navigation-related facilities.

Transportation: None of the proposed projects are transportation development or improvement projects.

Agriculture: None of the proposed projects would be agriculture related.

Sewage Treatment: None of the proposed projects would involve the discharge of sewage effluent, a sewage treatment facility, or an on-site sewage disposal system.

Development

Some development policies are applicable to the proposed projects:

Policy: Any development shall be designed to minimize erosion and keep sediment onsite. MDE (C4) COMAR 26.17.01.08.

Policy: Development must avoid and then minimize the alteration or impairment of tidal and non-tidal wetlands; minimize damage to water quality and natural habitats; minimize the cutting or clearing of trees and other woody plants; and preserve sites and structures of historical, archeological, and architectural significance and their appurtenances and environmental settings. MDE/DNR/CAC (D6) Md. Code Ann., Envir. §§ 4-402, 5-907(a), 16-102(b); Md. Code Ann., Nat. Res. §§ 5-1606(c), 8-1801(a); Md. Code Ann., Art. 66B § 8.01(b); COMAR 26.24.01.01(A).

JBA would protect the water quality of state waters by implementing erosion and sediment control measures on all construction sites and control pre- and post-construction stormwater runoff, including erosion, sedimentation, and nonpoint source pollution in accordance with Maryland *Stormwater Management Guidelines for State and Federal Projects* (MDE 2010) and the MDE *Stormwater Management Act of 2007* (MDE 2007). JBA will also incorporate Sustainable Design and Development and energy conservation principles into facility design, and all construction will be designed to incorporate low-impact development practices to protect water quality and natural habitats and minimize the cutting or clearing of trees and other woody plants.

Policy: Any proposed development may only be located where the water supply system, sewerage system, or solid waste acceptance facility is adequate to serve the proposed construction, taking into account all existing and approved developments in the service area and any water supply system, sewerage system, or solid waste acceptance facility described in the application and will not overload any present facility for conveying, pumping, storing, or treating water, sewage, or solid waste. MDE (C9) Md. Code Ann., Envir. § 9-512.

Policy: A proposed construction project must have an allocation of water and wastewater from the county whose facilities would be affected or, in the alternative, prove access to an acceptable well and on-site sewage disposal system. The water supply system, sewerage system, and solid waste acceptance facility on which the building or development would rely must be capable of handling the needs of the proposed project in addition to those of existing and approved developments. MDE (D6) Md. Code Ann., Envir. § 9-512.

Policy: To meet the needs of existing and future development, communities must identify adequate drinking water and water resources and suitable receiving waters and land areas for stormwater management and wastewater treatment and disposal. MDE (D6) Md. Code Ann., Art. 66B § 3.05.

All areas of JBA are served by adequate utility systems.

Other development policies are not applicable to the proposed projects: The projects do not involve:

- A residence or commercial establishment that is served or will be served by an on-site sewage disposal system or private water system.
- Grading or building in the Severn River Watershed.
- Establishment of an industrial facility.

Because the development is on JBA the following development policies do not apply to the proposed projects:

- Local citizens shall be active partners in planning and implementation of development. MDP (D6) Md. Code Ann., St. Fin. & Proc. §§ 5-7A-01 to -02.
- Development shall protect existing community character and be concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers. MDP (D6) Md. Code Ann., St. Fin. & Proc. §§ 5-7A-01 to -02.
- Development shall be located near available or planned transit options. MDP (D6) Md. Code Ann., St. Fin. & Proc. §§ 5-7A-01 to -02.
- Whenever possible, communities shall be designed to be compact, contain a mixture of land uses, and be walkable. MDP (D6) Md. Code Ann., St. Fin. & Proc. §§ 5-7A-01 to -02.

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